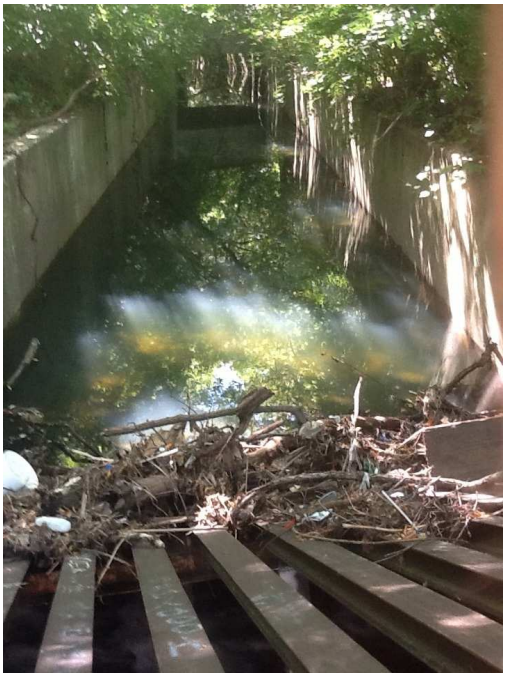
Springfield, Ohio
STORM WATER MANAGEMENT PROGRAM

Submitted October 29, 2013



Springfield, Ohio

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

James A. Bodenmiller
City Manager

Introduction

EXECUTIVE SUMMARY

The City of Springfield is required to submit a storm water management program (SWMP) in accordance with 40 CFR Part 122.32 and Ohio Law. A SWMP is a requirement of the City's National Pollutant Discharge Elimination System permit. The permit is issued by Ohio EPA and has a five year cycle. The next generation of the permit begins January 30, 2014. The permit lists six minimum control measures (MCMs) that the City of Springfield must accomplish in order to try to reduce stormwater pollution to the maximum extent practical.

STATEMENT OF AUTHORITY

Within our organization, we have the legal authority to perform all of the activities for which we claim responsibility in this Storm Water Management Program. Where we do not have legal authority, we have assigned that responsibility to another body possessing the necessary authority to proceed in the manner described.

PERMIT COVERAGE AREA

The storm water management program covers the area within the City of Springfield identified as of 2010 as an Urbanized Area. Springfield has a population of 60,333 residents, 270 miles of roadway, 227 miles of sanitary sewer, 180 miles of storm sewer, and 85 miles of combined sewer. A combined sewer is a pipe that accepts both sanitary waste and stormwater. Each type of system has specific management plans.

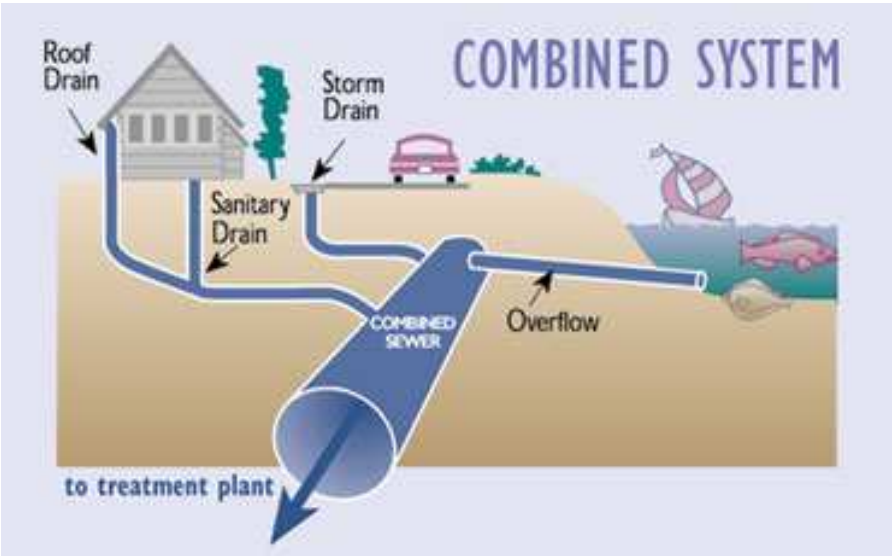


Figure 1: A Combined Sewer

REPORTING

The stormwater management program covers the area within the City. Ohio EPA requires an annual report that includes the status of compliance with the permit conditions, an assessment of the appropriateness of the practices we implement, and progress towards achieving the measurable goals for each of the six minimum control measures. The report will be a summary of the activities to be undertaken during the next reporting cycle, including an implementation schedule. The report will also include any changes to practices or measurable goals and results of information collected and analyzed, if any, during the reporting period. The report will also contain proposed changes to our SWMP, including changes to any practices or any identified measurable goals that apply to the program elements. Details will include notice of where we are relying on another government entity to satisfy some of our permit obligations, if applicable.

Storm Water Management Program of Springfield

This plan outlines the six minimum control measures that are expected to result in significant reductions in pollutants discharged by Springfield.

The six minimum controls are:

1) Public Education and Outreach on Storm Water Impacts
2) Public Involvement/Participation
3) Illicit Discharge Detection and Elimination
4) Construction Site Storm Water Runoff Control
5) Post-Construction Storm Water Management in New Development and Redevelopment
6) Pollution Prevention/Good Housekeeping for Municipal Operations

Each measure will be addressed separately below. This plan was reviewed by city staff and available for public comment online and at a public meeting before being finalized.

MCM 1: Public Education and Outreach on Stormwater Impacts

MCM Purpose: Stormwater running off our driveways, lawns, roads, and parking lots picks up dirt, bacteria, and chemicals that damage the quality of local streams. The volume of stormwater is also a problem, as it overtaxes our sewer system, causes backups, road flooding, and overflows into Buck Creek and its tributaries. These problems cannot be solved unless the public understands their causes and solutions.

EPA Expectation: The stormwater public education and outreach program shall include more than one mechanism and target at least five different stormwater themes or messages over the five year permit term. At a minimum, at least one theme or message shall be targeted to the development community. The stormwater public education and outreach program shall reach at least 50% of the population over the five year permit term. Table 1 shows Springfield's recent efforts to meet EPA's expectations.

Table 1: 2012-2013 Public Education and Outreach Activities

Activity	Stormwater Theme	Measurable Goal	Schedule	Responsible Party	Rationale
Meet with local builders association	Reducing development's stormwater impact	Target the development community once during the permit cycle	Spring 2012	City of Springfield	The development community needs to know that a stormwater coordinator has been hired and is an available resource.
Hold Backyard Conservation Workshops	Reduction of residential stormwater pollution	Hold two workshops	Spring 2013	City of Springfield and Clark County Solid Waste	The residential community needs education on simple effective ways to reduce stormwater pollution.
Buy 4 months of billboard advertising	Downspout disconnects	Reach 50% of the population	Spring and Fall 2013	City of Springfield	Billboards were seen as the only reliable way to reach 50% of the population before the permit period expired.
Hold a Site Planning Roundtable (Appendix A)	Low Impact Development	Reach consensus on recommended city code changes that will encourage Low Impact Development	2012-ongoing	City of Springfield, Miami Conservancy District, local developers and other stakeholders	LID is a land planning and engineering approach that manages stormwater closer to its source rather than managing it with pipes and stormwater ponds. LID produces less stormwater runoff and pollution.
Promote the Groundwater Guardian Green Site Program (Appendix B)	Good Housekeeping and Pollution Prevention reduces polluted stormwater.	Have one property become a GG Green Site	Ongoing	City of Springfield and local land owners	The Green Site program educates managers of campuses, parks, and other large green spaces about their role in controlling polluted runoff.

Springfield's Future Goals: Up until 2012, Springfield did not have a dedicated employee to focus on the stormwater program, so local and regional agencies were depended on to provide most of its public education and outreach. With the hiring of a stormwater coordinator, Springfield has started offering more targeted education and outreach. In deciding future activities, the City takes into consideration funding, available partners, and local interest and circumstances. Examples are below.

Continue the Backyard Conservation Program: Conversations with program participants led the City to consider doing several other similarly themed events.

- Many residents have asked for a rain barrel program and the City has planned one for summer 2013 and is considering holding them annually.
- The benefit of trees in reducing stormwater was discussed in detail at the Backyard Workshops. Partnering with local garden centers, the City will offer discounted trees to Springfield residents during the fall of 2013. Depending on the success of the program, we will consider making it an annual event.

Figure 2: No-Mow Zone

- Several residents have asked about backyard habitat and ways to landscape along a stream's edge. In response, the City is planning a targeted mailing to properties that border local waterways. The mailing will discuss No-Mow zones and specific planting plans for stream banks. Clark County Master Gardeners is partnering with the City to provide this information. The mailing is planned for 2014.

Meet with Neighborhood Groups: The Backyard Workshops introduced the stormwater coordinator to many members of local neighborhood groups and he has started scheduling meetings to discuss:

- The causes of stormwater runoff,
- The stormwater credit policy, and
- The benefit of downspout disconnects, rain gardens, and rain barrels.

By 2014, the City hopes to complete a prioritization of possible green stormwater project sites. Meeting with neighborhood groups is an important step in this process because local support will be critical in implementing these green projects. Green projects are those where natural hydrology is mimicked as much as possible. For example, whereas a traditional stormwater project manages runoff with pipes and holding ponds, a green stormwater project manages stormwater by allowing it to soak into the ground whenever possible.

Direct Mailings: Every year, the City sends a flyer about Combined Sewers and ways to reduce stormwater runoff to every utility customer. These flyers are identical every year and are planned to continue. We do not have a way to measure how many residents view these flyers. The stormwater coordinator is considering using this direct mail approach for other public education and outreach activities. If the activity offers an incentive to participate, we may get a better idea of how useful direct mailing is. Mailings under consideration are:

- A mailing to advertise the tree and rain barrel program
- A mailing with instructions on how to disconnect downspouts and the stormwater credit available for doing so

Fats Oils Grease (FOG): As FOG builds up in sewer lines, the lines can become clogged and cause backups of sanitary waste. Working with the Service Center and the Clark County Combined Health District, a FOG program is being created. In the summer of 2013, staff will inspect restaurant FOG

storage chambers (Appendix C). Springfield has FOG information on its webpage, http://www.ci.springfield.oh.us/swu/pdf/FOG.pdf, Our FOG education not only meets the goals of MCM 1, but also MCM 2 (see below)

Lessons from Implementing MCM 1:

- Constantly updating the City Stormwater page with resources and program material is not a productive use of time. The 2012 visitor count to the website was less than 100. This low number, combined with limited server space and IT staff resources make posting powerpoints, brochures, signs, and other project material to the website a low priority. The site has specific information for different stakeholders and encourages the public to contact the stormwater coordinator with questions. http://www.ci.springfield.oh.us/swu/index.htm
- Getting people to public meetings is very expensive. Meeting with neighborhood groups is good for building partnerships, but only offers the opportunity to speak to 10 or fewer people. Over 100 people attended the Backyard Workshops, but the outreach was very expensive. The City put a flyer in every utility bill and mailed a postcard to every property within a third of a mile from a stream. Additional work needs to be done to find the least expensive way to attract people to public events.

Figure 3: Bill Stuffer Used to Advertise the Backyard Conservation Program

- Residents are interested in simple or incentivized ways to reduce stormwater. In that vein, we are starting a rain barrel and tree planting program and considering programs to encourage downspout disconnects.
- The successes and failures of past education efforts have guided the development of our upcoming events. Continued evaluation of our programs hopefully will show more ways to adapt them to the public's needs.

PUBLIC INVOLVEMENT/PARTICIPATION
Minimum Control Measure #2

MCM Purpose: Every property, whether by fertilizers, lawn chemicals, pet waste, sediment, or leaking cars contributes to stormwater pollution. Despite its tremendous impact, stormwater pollution is largely unregulated, so reducing it requires voluntary action from the public. With that in mind, the Springfield Stormwater Program strives to offer residents ways they can actively participate in activities that reduce stormwater pollution.

EPA Expectation: The stormwater public involvement/participation program shall include, at a minimum, five public involvement activities over the permit term. Table 2 shows Springfield's recent efforts to meet EPA's expectations.

Table 2: 2011-2013 Public Involvement/Participation Activities

Activity	Measurable Goal	Schedule	Responsible Party	Rationale
Stormwater Utility Feasibility Open House	Give the public a way to actively comment on and question the proposed stormwater utility	Spring 2011	City of Springfield	Since the utility impacts every resident, opportunity to offer comments and ask questions needed to be provided.
Promote the Groundwater Guardian Green Site Program	Have one property become a GG Green Site	2012	City of Springfield and local land owners	The Green Site program incentivizes managers of campuses, parks, and other large green spaces to take steps that control polluted runoff.
Hold a Site Planning Roundtable	Reach consensus on recommended city code changes that will encourage Low Impact Development	2012-ongoing	City of Springfield, Miami Conservancy District, local developers and other stakeholders	The Roundtable was a process that allowed multiple stakeholders to discuss possible code changes and their implications.
Regular residential solid waste collection provided by a licensed hauler	Enforce collection ordinance in City of Springfield	Ongoing	City of Springfield residents	Each household must contract for solid waste collection service and not allow waste to accumulate on their property
Collect Household Hazardous Waste (HHW)	Hold collection event for all residents	Every summer	Clark County Solid Waste Management District	Providing a collection day allows residents to drop off HHW that might otherwise be dumped.

Springfield's Future Goals: Up until 2012, Springfield did not have a dedicated employee to focus on the stormwater program, so local and regional agencies were depended on to provide public involvement/participation activities. The Clark County Solid Waste Management District offers several such opportunities. In addition to the HHW pickup day mentioned above, they also offer a paint-recycling program, a motor oil recycling program, and compost facilities. All of these programs offer Springfield residents ways to actively reduce materials that otherwise might contribute to polluted runoff. The City plans on continuing to rely on these programs to meet EPA expectations. In addition, the City hopes to soon have their own public involvement/participation activities during the next permit cycle (2014-2019). These include a tree planting program and a downspout disconnect program. The City will also continue to promote its stormwater credit policy, which offers fee reductions for property owners who take steps to reduce runoff from their property.

Lessons from Implementing MCM 2:

- Residents are unlikely to comment on a proposed program until it is operating and its impact felt. The City widely advertised the Stormwater Utility Feasibility Open House, but only nine residents attended. However, once the utility started, the Stormwater Coordinator fielded scores of phone calls with questions about the utility and suggestions on how it should be administered. In hindsight, it is not clear what else could have been done to gather public comments on the utility. Moving forward, the City will hold a public meeting to re-introduce this document. Perhaps, since residents are more aware of the stormwater utility, attendance will be higher.
- Participation is relatively easy to get if you are offering residents something that they want. The Site Planning Roundtable and HHW drop off are good examples of this principle. In the future, the City's challenge will be to offer people ways to reduce stormwater that they will actually want to do. Further promotion and refinement of the stormwater credit policy will help this effort. We also feel the tree program will have relatively high participation. Looking ahead, a downspout disconnect program will likely have high participation, but that may only be because disconnects are required by City Code and Springfield has options to enforce it.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

Minimum Control Measure #3

MCM Purpose: According to the City's Stormwater Permit, the only flows that can enter Springfield's streams, ditches, catch basins, and other parts of the stormwater system are stormwater. The only exception to this is discharge from permitted facilities. Non-stormwater flows entering the stormwater system are known as illicit discharges and they must be detected and eliminated. This is primarily done by surveying the stormwater system (during dry periods) and investigating any flowing pipes.

EPA Expectation: The stormwater illicit discharge detection and elimination program shall include an initial dry-weather screening of all storm water outfalls (pipes) over the permit period. The program shall establish priorities and specific goals for long-term system wide surveillance of your MS4, as well as for specific investigations of outfalls and their tributary area where previous surveillance demonstrates a high likelihood of illicit discharges. Data collected each year shall be evaluated and priorities and goals shall be revised annually based on this evaluation. A comprehensive storm sewer map shall be updated annually as need. Table 3 shows Springfield's recent efforts to meet EPA's expectations.

Figure 4: One of many outfalls along Springfield's Streams

Table 3: 2012-2013 Illicit Discharge and Elimination Activities

Requirement	Activity	Schedule	Responsible Party
To have an ordinance in place to facilitate appropriate measures for elimination of illicit discharges	Chapter 916 of the Codified Ordinances gives the City authority to inspect for and eliminate illicit discharges coming from private property (Appendix D).	Chapter 916 is currently being revised	City of Springfield
To have a complete map of the stormwater system	Over 450 outfalls were found on local streams. 60 of those were flowing during dry weather. As of August, 2013, only one of those still needs to be traced back to its source.	Ongoing	City of Springfield
Septic System listing and mapping	The original map was based on data from 1994 and showed 329 septics. Septics have not been permitted in Springfield since before that date, so we know that no new systems have been added. Using utility billing records, we removed properties from the 1994 list that are now on city sewer. The new list of 271 septics was mapped, and the owner's address for each septic was found through County Auditor records. Information on financial assistance to connect to the city sewer will be sent to each owner (Appendix E).	Completed summer of 2013	City of Springfield
To have a plan outlining responsible parties and procedures for illicit discharges or complaints	City inspectors, as well as dispatch at the City Service Center have been given the Stormwater Coordinator's contact information and asked to forward information about illicit discharges or complaints to him.	Ongoing	City of Springfield

Springfield's Future Goals: We are continuing to refine our map of the stormwater system. The last remaining component is ditches, which are scheduled to be mapped during the summer of 2013. That work may also lead to the discovery of additional outfalls. With respect to outfalls, all of the flows we have found to date have turned out to be groundwater. Actual illicit discharges have not been found. Since illegal connections do not appear to be a large problem, we plan to only revisit the outfalls once a permit cycle. Most likely, an intern will visit them all over the course of one summer. The ordinance is currently being revised. Those revisions are scheduled to be completed before 2014. Three complaints about grass clippings being dumped in the city right of way were fielded in May 2013. The City began an outreach campaign for local landscaping companies (Appendix F)

Lessons from Implementing MCM 3:

- The City greatly underestimated the amount of time it would take to search for outfalls. Previous work on this MCM indicated there were less than 100 outfalls in Springfield, so finding over 450 was quite a surprise. We were also relatively unprepared for the hard work involved in wading through silted streams and hacking through honeysuckle while trying to survey a stream reach.
- Every flowing outfall we found was field tested for chlorine, phosphate, temperature, and pH. The temperature and pH tests never proved useful and in hindsight we should have only done them as secondary tests. Chlorine was a very useful test, as it indicates the possibility of a water line leak. Working with the City Service Center, we have confirmed that many flowing outfalls were caused by line breaks.

CONSTRUCTION SITE STORMWATER RUNOFF CONTROL
Minimum Control Measure #4

MCM Purpose: To develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the stormwater system from construction activities. The City achieves this goal through Chapter 961 of the Codified Ordinances (Appendix G). The City's stormwater permit requires any construction site over one acre to be regulated by this program, but the City will require small projects to control runoff as well. In general, the steps of Springfield's runoff control program are:

- Building plans are submitted to the City.
- The Stormwater Coordinator reviews the plans and either approves or asks for changes to the developer's runoff control plan.
- Once construction begins, the Stormwater Coordinator inspects the site at least monthly, to ensure that the runoff control plan is being followed.
- Violations of the plan are brought to the developer's attention. In extreme cases, the City has a process where fines can be assessed (Appendix G).

EPA Expectation: The Construction Site Stormwater Runoff Control program shall include preconstruction runoff control plan review of all projects from construction that results in a land disturbance of greater than or equal to one acre. All sites shall be inspected once construction begins and follow-up inspections shall be monthly unless the City deems otherwise. Table 4 shows Springfield's recent efforts to meet EPA's expectations.

Table 4: 2008-2013 Construction Site Stormwater Runoff Control

Requirement	Activity	Future Goal	Responsible Party
Ordinance or Other Regulatory Mechanism	The City has a mechanism in place to facilitate appropriate measures for control of runoff: Chapter 961 and 963 of the Codified Ordinances of the City of Springfield, Ohio, http://www.ci.springfield.oh.us/Gov/ord9.htm	A revision of the codes is scheduled to begin in 2014.	City of Springfield
Sediment and Erosion Control Requirements for Developers to Follow	City code references several best management practices. We also refer developers to the Ohio DNR Rainwater and Land Management Handbook.	Requirements will be reevaluated in 2014.	City of Springfield
Have a mechanism in place to receive complaints and begin investigations	Complaints are accepted via phone and email. The Stormwater Coordinator has visited with field staff from other city departments asking them to alert him to construction site erosion issues.	Ongoing. No planned changes.	City of Springfield
Have a mechanism in place to review site plans	All sites requiring a runoff control plan as defined in Chapter 961 are reviewed when submitted to the City Building Division for a Building Permit.	Review criteria will be reevaluated in 2014.	City of Springfield
Have a mechanism in place to inspect sites	Chapter 916 gives the City authority to inspect sites.	Ongoing. No planned changes.	City of Springfield
Have a mechanism in place to penalize offenders	Civil fines can be assessed through Chapter 1324.03 (Appendix H)	This process will be reevaluated in 2014.	City of Springfield

Springfield's Future Goals: The City strives to visit each construction site biweekly. Staffing makes that difficult sometimes, but more frequent visits appears to be a good way to create working relationships with site managers and ensure that issues are corrected in a timely manner. As noted in Table 4, we will begin a review of our ordinances in 2014. This may lead to changes in our construction site regulations.

Lessons from Implementing MCM 4:
Though the City has the authority to penalize offenders, achieving compliance through other means is preferable. While working with developers, we tend to stress compromise and alternatives rather than rigid 'You Must' demands. This approach and the trust it builds generally make it easier to achieve compliance when more serious issues arise.

Figure 5: Construction Erosion

POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Minimum Control Measure #5

MCM Purpose: To develop, implement, and enforce a program to ensure that runoff coming from completed development and redevelopment projects does not exceed the flow rates outlined in Chapter 961 of the Codified Ordinances. Post-construction stormwater runoff is generally managed by retaining the water in ponds or underground storage where it is slowly released into the stormwater system. The steps of Springfield's post-construction program are:

- Building plans are submitted to the City.
- The Stormwater Coordinator reviews the plans and either approves or asks for changes to the developers post-construction runoff control plans.
- Once construction begins, the Stormwater Coordinator inspects the site at least monthly to ensure that the post-construction runoff control practices are properly installed.
- Periodically, the Stormwater Coordinator will inspect completed sites to ensure that the post-construction runoff control practices are being properly maintained.

EPA Expectation: The Post-Construction Stormwater Management in New Development and Redevelopment program shall include pre-construction runoff control plan review of all projects from construction that results in a land disturbance of greater than or equal to one acre to ensure that required controls are designed per requirements. All sites shall be inspected once construction begins to ensure that controls are installed per requirements. The program shall also ensure that long-term operation and maintenance (O&M) plans are developed and agreements in place for all applicable sites. Table 5 shows Springfield's recent efforts to meet EPA's expectations.

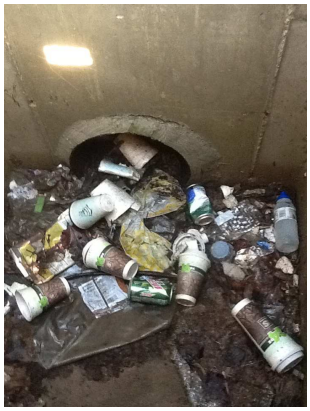


Figure 6: Trash collecting in a catch basin

Table 5: 2008-2013 Post-Construction Stormwater Runoff Control

Requirement	Activity	Future Goal	Responsible Party
Ordinance or Other Regulatory Mechanism	The City has a mechanism in place to facilitate appropriate measures for control of runoff: Chapter 961 and 963 of the Codified Ordinances of the City of Springfield, Ohio, http://www.ci.springfield.oh.us/Gov/ord9.htm	A revision of the codes is scheduled to begin in 2014.	City of Springfield
Post-Construction Requirements	City code references several best management practices. We also refer developers to the Ohio DNR Rainwater and Land Management Handbook.	Requirements will be reevaluated in 2014.	City of Springfield
Site Plan Review Procedures	Stormwater staff visited every construction site requiring a PC Practice and saw that it was installed according to the site plan.	Ongoing. No planned changes.	City of Springfield
Site Inspection Procedures	Stormwater staff inspected every known PC Practice. A shapefile of their location was made and is being updated as necessary.	Ongoing. No planned changes.	City of Springfield
Enforcement Procedures	Inspections and notification of needed maintenance led to an overall improvement in the efficiency and safety of the private stormwater system.	This process will be reevaluated in 2014.	City of Springfield
Long-Term O&M Plans/Agreements	As part of the plan review process, we have started requiring a written plan, as outlined in Chapter 961. As part of our larger code review process, we are considering updating our O&M requirements.	This process will be reevaluated in 2014.	City of Springfield

Springfield's Future Goals: Historic Post-Construction Practices will be inspected at least once every permit cycle. Most likely, an intern will do those inspections over the course of one summer. Periodically, we also update our GIS shapefile so new practices are included. As noted in Table 5 we will begin a review of our ordinances in 2014. This may lead to changes in our post-construction site regulations.

Lessons from Implementing MCM 5:

While inspecting historic Post-Construction Practices, it became obvious that most owners or property managers had no knowledge of the practice's location or its function. This led to many useful educational opportunities.

POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Minimum Control Measure #6

MCM Purpose: Just like any other property, City facilities generate runoff. Springfield manages a wide range of properties, including roads, parks, offices, and maintenance facilities. Good Housekeeping is the development and implementation of an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing polluted runoff from Springfield's facilities. There are a variety of ways to accomplish this goal:

- Springfield has written and is implementing Stormwater Pollution Prevention Plans for the airport and city service center. Periodically, these plans are updated.
- Best management practices are used to minimize the risk of spills and contaminants reaching the stormwater system. For instance, salt piles are kept covered, gas tanks are buried and monitored for leaks, spill kits are kept in the garages, and secondary containment is provided for above ground tanks.
- City streets are swept at least annually, and city catch basins are cleaned.
- Upon being hired, service staff are trained in Good Housekeeping techniques.

EPA Expectation: The Good Housekeeping program shall include an annual employee training. It shall also include appropriate procedures, controls, maintenance schedules, and recordkeeping as outlined in the City's stormwater permit.

Table 6: 2012-2013 Good housekeeping Operations

Requirement	Activity	Schedule	Responsible Party
Employee Training Program	Upon hire, new employees receive good housekeeping training. In 2012, six senior staff went through housekeeping training. A program goal is to provide periodic training for pertinent staff during the next permit cycle.	Ongoing	City of Springfield
Proper disposal of waste	City operations recycle oil and other chemicals, as well as paper, cardboard, and batteries. Service staff are continually looking at ways to reduce waste.	Ongoing	City of Springfield
Proper management of road salt	Springfield has a salt barn. Any salt stored outside is covered per Ohio EPA guidelines.	Ongoing	City of Springfield
Proper Pesticide and Herbicide Usage	Both city and park staff are trained in pesticide and herbicide application.	Ongoing	City of Springfield
Proper fertilizer use	Both city and park staff are trained in fertilizer application.	Ongoing	City of Springfield
Street Sweeping	City streets are swept annually and as specific issues arise.	Ongoing	City of Springfield
Catch Basin Cleaning	City catch basins are vacuumed annually and as specific issues arise.	Ongoing	City of Springfield
Leaf Pickup	Twice a year, Springfield picks up property owners' leaves.	Ongoing	City of Springfield

Springfield's Future Goals: During the next permit cycle, the City will investigate strategies to provide refresher good housekeeping training to pertinent staff. In 2013, the City is improving the Service Center's stormwater pond so it functions more as a wetland/prairie. This change will reduce stormwater pollution and count as a good housekeeping measure. We have also promoted the Groundwater Guardian Green Site program, which encourages managers of large green spaces to practice good housekeeping. A private golf course and the City's water treatment plant have been accepted into the program. In the future, we hope additional properties will participate. The Stormwater Pollution Prevention Plan for the airport will also be updated once a current sewer expansion project at that site is completed.

Lessons from Implementing MCM 6: Good housekeeping touches on many different departments and city properties. Moving forward, the Coordinator hopes to craft a training program that will not only be pertinent to City activities, but will work well with schedules of service staff.

CONCLUSIONS

Springfield has had a Stormwater Coordinator since December 2011. In that time, all aspects required of the current stormwater permit have been finalized. The City has also set several long-term goals, many of which overlap with the MCMs and were mentioned above.

- The Site Planning Roundtable suggested several ordinance changes to encourage Low Impact Development in Springfield. In the summer of 2013, the City had interns researching those recommendations and assisting staff in preparing them for the Code Review Process. Relevant MCMs include 1, 2, 4, 5, and 6.
- A Backyard Conservation Program kicked off in 2013. The program strives to offer residents simple ways to reduce polluted runoff coming from their property. We held a tree sale and a rain barrel program over the summer of 2013. In 2014 we will reach out to properties along local streams and educate them on the importance of no-mow zones and other stream buffers. Relevant MCMs include 1 and 2.
- Promoting the Groundwater Guardian Green Site Program continues to be a priority. Springfield has two sites, and we hope to add at least one more within the next year. Relevant MCMs include 1, 2, and 6.
- In 2012, we researched sites across Springfield that have potential as green stormwater sites. Simply put, we looked for areas where stormwater could be taken out of the stormwater system and put onto the landscape in order to soak into the ground. In 2013, we are taking that data and building on it. Staff are researching which combined sewer drainage areas have the most runoff per acre and the greatest opportunity to install practices that will infiltrate stormwater. Once those areas are prioritized, we can focus resources where funding and education can do the most good. Relevant MCMs include 1, 2, 3, and 6.

None of these projects can find success without community partners and support. The City is actively reaching out to the community in order to promote the goals of the Stormwater Program. Any questions about the program or ideas to improve it are welcome.

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Appendix A: Site Planning Roundtable Overview

Information taken from Miami Conservancy District's webpage 6.10.2013

http://www.miamiconservancy.org/water/building_our_future.asp

SURFACE WATER PROGRAMS **Green Infrastructure**

Building Our Future in the Great Miami River Watershed

Low Impact Development (LID) is an innovative land management approach that manages rainfall where it lands. The goal is to mimic a site's pre-development landscape by using site design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Instead of managing and treating stormwater in large, costly end-of-pipe facilities such as stormwater detention ponds, LID encourages the use of small, cost-effective management practices located on each individual lot. Almost all components of the urban environment have the potential to serve as a management practice. This includes open space, rooftops, streetscapes, parking lots, sidewalks, driveways and medians. LID is a versatile approach that can be applied equally well to new development, urban retrofits, and commercial and industrial projects.

Benefits to using LID in your community

LID has many benefits and advantages over conventional development, including:

- Enhancing the local environment and protecting public health while saving developers and local governments time and money.
- Addressing nonpoint source pollution and stormwater management regulatory challenges in a simple and economical manner.
- Protecting surface water and groundwater from the impacts of runoff and groundwater contamination that can come from urban neighborhoods.
- Helping local governments to better balance conservation, growth, and economic development objectives by having more effective and flexible technology choices.
- Reducing stormwater conveyance and stormwater management infrastructure and their associated construction, maintenance and enforcement costs.
- Reducing water pollution and improving wildlife habitat more effectively than conventional best management practices (BMPs) because LID uses multiple systems.
- Using technologies that universally apply to greenfields, brownfields, and urban redevelopment in any climatic or geological region.
- Enjoying increased quality of life, fiscal health, reduced air pollution, water conservation, better habitat protection and increased property values

How do communities get started?

1st — Communities should take a close look at local zoning codes and ordinances and how they address water resources to identify areas that can be changed. The Miami Conservancy District (MCD) can provide tools and/or assistance to evaluate your community.

2nd — Land use plans and subdivision regulations can be altered to allow innovative Low Impact Development site design techniques. There are model development principles available to provide design guidance for economically viable, yet environmentally sensitive development.

MCD's objective is to help planners, developers, and local officials look for existing ordinances that can be modified to reduce impervious cover, conserve natural areas, and prevent stormwater pollution. These development principles are not national design standards. Instead, they identify areas where existing codes and standards can be changed to better protect streams, groundwater, and wetlands in your community. The development principles are divided into three areas:

- Residential Streets and Parking Lots (Habitat for Cars)
- Lot Development (Habitat for People)
- Conservation of Natural Areas (Habitat for Nature)

3rd — MCD can help encourage developers to use these techniques in your community. The result is communities that offer greater economic benefits, more recreation opportunities, flood prevention, and a higher quality of life.

Appendix B: Groundwater Guardian Green Site Overview

Information taken from the Groundwater Foundation's webpage 6.10.2013

http://mail.groundwater.org/gg/learnmore_greensites.html

The Groundwater Guardian (GG) Green Site program was developed to recognize good stewards of groundwater by encouraging managers and superintendents of highly-managed green spaces to implement, measure, and document their groundwater-friendly practices. The program will document current practices related to pesticide and fertilizer use, water use, pollution prevention, water quality, and environmental stewardship.

Managers of any green spaces can apply for Green Site designation, including, but not limited to:

- Golf courses
- Ball fields
- Educational campuses
- Residential, recreational, city, and office parks
- Wellhead protection areas
- Nature centers

Each GG Green Site collects data and documents the environmental impact of their groundwater friendly practices, such as pounds of fertilizer saved annually by using lower input plants, gallons of water saved annually by using low water/maintenance plant materials, amounts of toxic substances disposed of properly, and other related items. To see a GG Green Site in action, download this Case Study of Bayside Golf Course in Nebraska.

Education is built in to the GG Green Site program. Locations document their internal education efforts for site staff and external education for site visitors. The application itself serves dual purposes – first, as a way to objectively and uniformly evaluate each site's practices, and second, as an educational tool for site managers that work through it.

Program Benefits

Being guardians and good stewards of groundwater is something managers and superintendents of many highly-managed green spaces strive to do every day, whether it's through protecting a well, using water efficiently, managing fertilizer and pesticide use, or controlling runoff. The Green Site program:

- Publicly recognizes highly-managed green spaces for their groundwater stewardship.
- Generates positive PR for your site.
- Provides an opportunity for managers of highly-managed green space to educate themselves, site staff, and site visitors about groundwater.
- Documents the environmental benefit of each site's groundwater-friendly practices.
- Encourages the sustained use of groundwater-friendly practices on highly-managed green spaces.
- Continuation of a monthly newsletter with water news, program information and updates, funding opportunities, success stories, and more
- Additional case studies highlighted on the Green Site website
- Other educational resources
- Opportunities to connect with other Green Sites, Groundwater Guardians, and water experts through Facebook, blogs, and The Groundwater Foundation's National Conference
- Discounted or free access to Groundwater Foundation webinars

- 10% discount on Groundwater Catalog products

Tools for Current Groundwater Guardians

The GG Green Sites program is independent of the community-based Groundwater Guardian program, but may be used to complement Groundwater Guardian teams' efforts and provide another option for teams looking for new ways to:

- protect groundwater in their community,
- further their team's impact,
- expand outreach efforts,
  collect data about groundwater-friendly practices at sites in their community, and
- recognize the environmental stewardship of community partners.

It's Confidential

All information submitted to The Groundwater Foundation in Green Site program applications is confidential, and will not be shared without the permission of the site manager.

Get Involved!

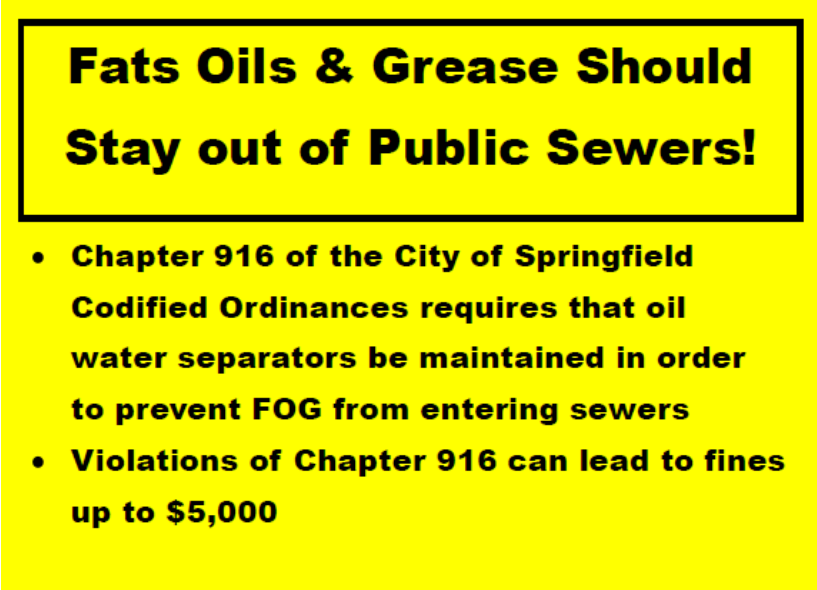
There's no time like the present! Sites can use the exclusive GG Green Site logo and name as soon as they are designated. The nicer weather of the spring and summer months will bring more visitors to your site – get involved as a GG Green Site now and take advantage of the opportunity to share your groundwater stewardship efforts with visitors and the community.

The program is open to any site implementing groundwater-friendly practices. Completed applications must be submitted by December 31 to be designation that program year. Sites designated prior to The Groundwater Foundation's National Conference, held in November, will be nationally recognized in conjunction with the Groundwater Guardian National Designation Celebration.

If you are interested in participating in the GG Green Sites program, download the program application form. To learn more, read the frequently asked questions page or contact The Groundwater Foundation at 1-800-858-4844 or email guardian@groundwater.org.

Appendix C: FOG Outreach

Both images below were printed as magnets and handed out after the City finished the inspection.



Appendix D: Chapter 916

Chapter 916 of Springfield's Code outlines the use of public sewers, including what can and cannot be placed into them. The Chapter covers illicit discharges and is currently being revised to better meet Ohio EPA's requirements of an illicit discharge ordinance.

(Entire Chapter 916 amended by Ordinance No. 11-101, passed April 12, 2011)

CHAPTER 916
Use of Public Sewers

CROSS REFERENCES
Compulsory sewer connections—see Ohio R.C. 729.06
Sewer regulations—see Ohio R.C. 729.51
Untreated sewage—see Ohio R.C. 3701.59
Private sewage disposal systems—see OAC Ch. 3701.29

916.01 DEFINITIONS.
Whenever used in this chapter:

(a) "Act" means the Clean Water Act (33 U.S.C. 1251 et seq) as amended.

(b) B.O.D." (denoting biochemical oxygen demand) means the quantity of oxygen utilized in the carbonaceous and nitrogenous biochemical oxidation of organic matter under standard laboratory procedure in five days at twenty degrees Centigrade, expressed in milligrams per liter (mg/l).

(c) "Best Management Practice" (BMP): Any schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in OAC 3745-3-04. BMP's also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

(d) "CB-B.O.D." (Denoting Carbonaceous Biochemical Oxygen Demand) means the quantity oxygen utilized in the carbonaceous biochemical oxygen demand of organic matter under standard laboratory procedure in five days at twenty degrees centigrade, expressed in milligrams per liter (mg/l).

(e) "Categorical Pretreatment Standards" means the National Pretreatment Standards of the

Clean Water Act (33 U.S.C. 1251 et seq) specifying quantities or concentrations of pollutants or pollutant properties which may be discharged or introduced into the Springfield Wastewater Treatment Plant by specific industrial dischargers.

(f) "C.F.R." means code of federal regulations.

(g) "Chronic violation" means sixty six percent (66%) or more of the measurements exceed the same daily maximum limit or the same average limit in a six (6) month period.

(h) "Combined sewer" means a sewer receiving both surface runoff and sewage.

(i) "Compatible pollutant" shall mean pollutants which the treatment plant was designed to treat which are B.O.D., suspended solids, fecal coliform, phosphorous and ammonia.

(j) "Composite wastewater sample" means a combination of individual samples of water or wastewater taken at selected intervals, either time proportional or flow proportional, as to minimize the effect of the variability of the individual sample. The individual aliquots comprising the time and flow proportional samples will be of roughly equal volume. (k) "Director" means the Director of the Services Department of the City, or his authorized deputy, agent, or representative.

(l) "Dischargers-industrial discharger" means any non-residential user who releases any effluent into the Springfield Sewer System by means of pipes, conduits, pumping stations, force mains, construction drainage ditches, intercepting ditches, and all constructed devices and appliances appurtenant thereto.

(m) "Garbage" means solid wastes from the domestic and commercial preparation, cooking and dispersing of food, and from the handling, storage and sale of produce.

(n) “Grab Sampling:” An individual sample, taken at one specific point in time, and not combined with any other samples taken.

(o) "Hazardous waste" means any waste or combination of wastes which pose a substantial present or potential hazard to human health or living organisms because such wastes are non-biodegradable or persistent in nature or because they can be biologically magnified, or because they can be lethal, or because they may otherwise cause or tend to cause detrimental cumulative effects, including any substance, combination of substances or mixtures as defined as "hazardous wastes" in 40 CFR Part 261.

(p) "High Strength sewage" is defined as sewage containing more than 500 mg/l total Suspended Solids, 400 mg/l B.O.D., and/or 30 mg/l Ammonia Nitrogen.

(q) "Industrial wastes" means the liquid or solid wastes from industrial manufacturing processes, trade or business as distinct from sanitary sewage.

(r) "Industrial user" means any source of the introduction of pollutants into the Wastewater Treatment Plant from any non- domestic source regulated under Section 307 (B)(C)(D) of the Act.

(s) "Interference" means the inhibition or disruption of the Springfield Sewer System, treatment processes or operations which contributes to a violation of any requirement of its NPDES permit. The term includes prevention of sewage sludge use or disposal by the POTW in accordance with Section 405 of the Act or any criteria, guidelines, or regulations developed pursuant to the Clean Air Act, the Solid Waste Disposal Act (including Title II, more commonly known as the Resource Conservation and Recovery Act), the Toxic Substance Control Act, the Marine Protection Research And Recovery Act, or any more stringent state criteria.

(t) "Natural outlet" means any outlet into a watercourse, pond, ditch, lake, or other body of surface or groundwater.

(u) "New source or new discharger" means any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication of the proposed pretreatment standards under Section 307(C) of the Act which will be applicable to such source if such standards are thereafter promulgated in accordance with that section, provided that: (1) the building, structure, facility or installation is constructed at a site at which no other source is located; or (2) the building, structure, facility or installation totally replaces the process or production equipment that

causes the discharge of pollutants at an existing source; or (3) the production or wastewater generating process of the building, structure, facility or installation are substantially independent of existing source at the same site.

(v) "Normal sewage" is defined as sewage containing not more than 250 mg/l Suspended Solids, 200 mg/l B.O.D., 15 mg/l Ammonia Nitrogen.

(w) "NPDES" shall mean the National Pollution Discharge Elimination System permit in effect as issued by the Ohio Environmental Protection Agency which regulates the strength of the wastewater treatment plant effluent at its discharge point to the Mad River.

(x) "Pass through" means a discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of violation of any requirements of the NPDES Permit.

(y) "Person" means any individual, firm, company association, society, corporation, or group.

(z) "pH" means the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

(aa) "P.O.T.W." means Publicly Owned Treatment Works or any sewage treatment works and the sewers and conveyances appurtenances discharging thereto, owned and operated by the City of Springfield.

(bb) "Pretreatment" means the reduction of the amounts of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the wastewater treatment plant.

(cc) "Pretreatment regulations" is defined as a discharge limit related to pretreatment that is imposed on an industrial user by the Ohio Administrative Code Chapter 3745-3, Chapter 916 of the Codified Ordinances of the City of Springfield, Ohio, any control mechanism (including local Industrial Wastewater Discharge Permits), categorical pretreatment standards, prohibitive discharge limits established pursuant to rule 3745-3-04 of the Ohio Administrative Code, local limits established pursuant to paragraph (C)(4) of rule 3745-3-03 and paragraph (D) of rule 3745-3-04 of the Ohio Administrative Code, and any enforceable schedule designed to achieve compliance with such limit.

(dd) "Priority pollutant" means any of the pollutants classified by the U.S.E.P.A. in 40 CFR Part 122, Appendix D, and amendments. These generally consist of volatile and semi-volatile organic compounds, pesticides, poly-chlorinated biphenols and metals.

(ee) "Properly shredded garbage" means the wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch in any dimension.

(ff) "Public sewer" means a sewer in which all owners of abutting properties have equal rights, and is controlled by public authority.

(gg) "Regulated industrial categories" means those categories defined in the Clean Water Act (33 U.S.C. 1251 et seq) as being regulated.

(hh) "Sanitary sewer" means a sewer which carries sewage and to which storm, surface and groundwaters are not intentionally admitted.

(ii) "Sewage" means a combination of the water-carried wastes from residences, business buildings, institutions, and industrial establishments, together with such ground, surface and storm waters as may be present.

(jj) "Sewer" means a pipe or conduit for carrying sewage.

(kk) "Shall" is mandatory; "may" is permissive.

(ll) "Significant noncompliance" means a violation which remains uncorrected forty five (45) days after notification of noncompliance; which is part of a pattern of noncompliance over a twelve month period, either chronic violations or technical review criteria

violations; which involves a failure to accurately report noncompliance; or which resulted in the POTW exercising its emergency authority under 40 CFR, Part 403.8(f)(1)(vi)(B)

(mm) "Significant industrial user" means all categorical industries and any noncategorical industry that has either, 1) a discharge averaging 25,000 gallons per day of process wastewater per billing period, or 2) discharges less than 25,000 GPD [determined by the average daily discharge per billing period] and contributes a process wastestream which makes up five percent (5%) or more of the average dry weather hydraulic or organic capacity of the treatment plant and/or 3) has a reasonable potential, in the opinion of the director, to adversely affect the Wastewater Treatment Plant.

(nn) "Slug" means any discharge of water, sewage, or industrial waste which in concentration of any given constituent or in quantity of flow, exceeds for any period of duration longer than fifteen minutes: 1) more than seven and one half (7.5) times the concentration of High Strength Sewage or 2) any constituent at a flow rate and/or concentration that will cause interference with the POTW.

(oo) "Storm sewer" means a sewer which carries storm and surface waters and drainage, but excludes sewage and industrial wastes, other than unpolluted cooling water.

(pp) "Suspended solids" means any solids that either float on the surface of, or are in suspension in water, sewage or other liquids, and which are removable by laboratory filtering.

(qq) "Technical review criteria (TRC) violations" means those in which thirty three percent (33%) or more of all the measurements for each pollutant parameter taken during a six month period equal or exceed the product of the daily maximum limit or average limit multiplied by the applicable TRC (TRC=1.4 for fats, oil and grease, and 1.2 for all other pollutants except pH).

(rr) "T.K.N." means total kjeldahl nitrogen determined by the kjeldahl method as nitrogen in the trinegative state and expressed in milligrams per liter (mg/l).

(ss) "Total toxic organics" means the sum of masses or concentrations of specific toxic organic compounds found in the industrial user's process discharge at a concentration greater than 0.01 mg/l. Each categorical standard is listed in 40 CFR Part 403, the specific toxic organic compounds that are to be included in the summation to define TTO for the category. If the industry is not defined under the categorical standards, then total toxic organics means the organic constituents that are considered federal priority pollutants.

(tt) "Toxic pollutants" means those substances considered by the Federal Environmental Protection Agency as priority pollutants.

(uu) "Upset" means an exceptional incident in which a discharger unintentionally and temporarily is in a state of non-compliance with the standards set forth in this ordinance due to factors beyond the reasonable control of the discharger, and excluding non-compliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless or improper operation thereof.

(vv) "Watercourse" means a channel in which flow of water occurs, either continuously or intermittently.

(ww) "Wastewater Treatment Plant" means any arrangement of devices and structures used for treating sewage.

916.02 USE OF PUBLIC SEWERS.

(a) All dischargers proposing to connect to or discharge sewage, industrial wastes and other wastes to the Wastewater Treatment Plant shall make application and written contract to the City of Springfield before connection or discharging to the Wastewater Treatment Plant.

(b) No person shall discharge or cause to be discharged any storm water, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, or unpolluted industrial

process waters to any sanitary sewer. All existing connections allowing such discharge may be reviewed and approved or rejected by the Director upon consideration of the resulting hardships and related factors.

(c) Industrial cooling water or unpolluted process waters may be discharged to a storm sewer, combined sewer or natural outlet.

(d) No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

(1) Any liquids, solids, or gasses which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the sewer system or the POTW or to the operation of the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of !ess than 140 degrees Fahrenheit or 60 degrees centigrade using the test method specified in 40 CFR 261.21. Prohibited substances include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, ketones, aldehydes, peroxides, chlorates, alcohols, bromates, carbides, hydrides, perchlorates, sulfides and any other substance which the City, the state, or EPA has notified the user is a fire hazard or hazard to the system.

(2) Any waters or wastes containing toxic or poisonous pollutants as solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process, constitute a hazard to human or animals, create a public nuisance or create any hazard in the receiving waters of the wastewater treatment plant, including but not limited to cyanide in excess of 2.3 mg/1 as CN in the wastes as discharged to the public sewer, or more than three mg per cubic meter of air in any sewer.

(3) Any waters or wastes having a pH lower than 5.0 or higher than 11.0 or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the sewage works.

(4) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works, such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, wood, glass, rags, feathers, tar, flashings, entrails, and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.

(5) Any waters or wastes containing objectionable or toxic substances which may cause the wastewater treatment plant to exceed NPDES conditions. Industrial waste shall not exceed the limits for the specific materials listed below based on a 24-hour composite sample, or the Pretreatment Regulations as outlined in 916.01(cc).

Effluent characteristics	Discharge limitations mg/l
Arsenic (total)	0.04
Cadmium (total)	0.033
Chromium (total)	3
Chromium (hexavalent)	2.400
Copper (total)	0.900
Lead (total)	0.240
Mercury (total)	0.005
Nickel (total	0.730
Selenium (total)	1
Silver (total)	0.350
Zinc (total)	1.900
Total toxic organics	2.13

(6) No discharger shall increase the use of potable or process water in any way, nor

mix separate waste streams for the purpose of diluting a discharge to partially or completely substitute adequate treatment to achieve compliance with the standards set forth in this ordinance.

(7) No person or persons shall discharge any hazardous wastes to the POTW by truck, rail, or dedicated pipeline. Industrial users are required to notify the POTW if they are disposing of any RCRA listed or characteristic hazardous wastes, as defined in 40 CFR 261, by discharging it into the POTW. Exempt from this notification requirement are these industrial users who discharge 15 kilograms or less per month of non-acute hazardous wastes. All industrial users shall promptly notify the director in advance of any substantial changes in the volume or character of pollutants in their discharge, including the listed or characteristic hazardous wastes for which the industrial user has submitted initial notification under 40 CFR 403.12(p).

(8) If best management practices (BMP's) are developed as a local limit for any industrial user, then any violation of those BMP's will be treated as a violation of this ordinance.

(e) No person shall discharge or cause to be discharged the following described substances, materials, waters, or wastes if it appears likely in the opinion of the Director that such wastes can harm either the sewers, sewage treatment process or equipment, have an adverse effect on the receiving stream or can otherwise endanger life, limb, public property or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the Director will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of sewage treatment process, capability of the wastewater treatment plant, and other pertinent factors. The substances prohibited are:

(1) Any liquid or vapor having a temperature higher than 150 degrees Fahrenheit, or 65 degrees Centigrade at the discharge point into the sewer and/or any temperature which would cause the POTW to have an influent temperature of 104 Fahrenheit or 40 centigrade at any time.

(2) Any water or wastes containing fats, waxes, greases, or oils, whether emulsified or not, in excess of 100 mg/1 or containing substances which may solidify or become viscous at temperatures between 32 degrees and 150 Fahrenheit, or between 0 degrees and 65 degrees Centigrade .

(3) Any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipment with a motor of three-fourths horsepower or greater shall be subject to the review and approval of the Director.

(4) Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions.

(5) Any waters or wastes containing taste or odor producing substances in such concentrations as exceed limits which may be established by any State, Federal, or other public agency having jurisdiction over the discharge of such substances to the receiving waters.

(6) Any radioactive waste or isotopes of such half-life or concentration as may exceed limits established by the Director in compliance with applicable State or Federal regulations.

(7) Materials which exert or cause:

A. Unusual concentration of inert suspended solids (such as, but not limited to, Fullers earth, lime slurries, and lime residue) or of dissolved solids, (such as, but not limited to, sodium chloride and sodium sulfate).

B. Excessive discoloration, such as, but not limited to, dye wastes and vegetable tapping solutions.

C. Unusual requirements of BOD, suspended solids, or chlorine demand in such quantities as to constitute a significant load on the wastewater treatment plant.

D. Unusual volume of flow or concentration of wastes constituting "slugs" as

defined herein.

(8) Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed, or are amenable to treatment only to such degree that the Wastewater Treatment Plant effluent cannot meet the requirements of other agencies having jurisdiction over the discharge of such substances to the receiving waters or will contaminate the sludge thereby rendering it unsuitable for reclamation.

(9) The National Categorical Pretreatment Standards as promulgated by the U.S. Environmental Protection Agency (EPA) shall be met by all dischargers of the regulated industrial categories. An application for modification of the National Categorical Standards may be considered for submittal to the U.S.E.P.A. Regional Administrator by the City of Springfield, when the City's Wastewater Treatment System achieves consistent removal of the pollutants as defined by 40 CFR 403.7.

(f) Whenever the City finds that any discharger has engaged in conduct which justifies the revocation of a wastewater discharge contract or suspension of service, the City shall serve or cause to be served upon such discharger a written notice either personally or by certified mail, return receipt requested, stating the nature of the alleged violation. Within 10 (ten) days of the date of the receipt of the notice, the discharger shall, respond personally, or in writing to the City, advising of its position with respect to the allegations. Thereafter, the parties shall meet to ascertain the veracity of the allegations and where necessary, establish a plan for the satisfactory correction thereof.

(g) Notwithstanding the provisions of subsection (f) above, the City of Springfield may for good cause shown immediately suspend the wastewater treatment services and the wastewater contract of a discharger when it appears to the City of Springfield that an actual or threatened discharge presents or threatens an imminent or substantial danger to the health or welfare of persons, substantial danger to the environment, interfere with the operation of the wastewater treatment plant, violate any pretreatment limits imposed by this ordinance or any wastewater discharge contract issued pursuant to this ordinance. Any discharger notified of the suspension of the City's wastewater treatment service shall within a reasonable period of time, as determined by the City, cease all discharges. In the event of failure of the discharger to comply voluntarily with the suspension order within the specified time, the City shall disconnect service lines from the main sewer system and commence judicial proceedings immediately thereafter to compel the discharger's compliance with such order. The City shall reinstate the wastewater dischargers service and contract and terminate judicial proceedings upon proof by the discharger of the elimination of the non-complying discharge in conditions creating the threat of imminent or substantial danger as set forth above.

(h) The City of Springfield may revoke the contract and/or disconnect the service of any discharger which:

(1) Fails to factually report the wastewater constituents and characteristics of its discharge in any baseline, quarterly or any other required report;

(2) Fails to report significant changes in the wastewater constituents or characteristics;

(3) Refuses reasonable access to the discharger's premises by representatives of the City of Springfield for the purpose of inspecting or monitoring;

(4) Violates the conditions of its application and contract, or this ordinance, or any final judicial order entered with respect thereto.

(i) If the pretreatment or equalization of waste flows is required herein, then the design and installation of the plants and equipment required thereby shall be subject to the Director's approval as well as all applicable codes, ordinances, and laws. Grease, oil, and sand interceptors shall be provided, when in the opinion of the City, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters of dwelling units. All interceptors shall be of a type and capacity approved by the City, and shall be located as to be readily and easily accessible for

cleaning and inspection.

(j) Where preliminary treatment or flow-equalizing facilities are provided for any water or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense.

(k) When required by the City, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable structure together with such necessary meters, flow measuring devices and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such structure, when required, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the City. The structure shall be installed by the owner at his expense and shall be maintained by him so as to be safe and accessible at all times.

(l) All analysis shall be performed by the discharger, or by his agent, in accordance with 40 CFR, Part 136 and amendments thereto. Where 40 CFR, Part 136 does not include a sampling or analytical technique for the pollutant in question, sampling, and analysis shall be preformed in accordance with the procedure set forth in the most recent publication of the U.S.E.P.A., "Sampling And Analysis Procedures For Screening Of Industrial Effluents For Priority Pollutants", and/or the U.S.E.P.A. manual "Methods For Chemical Analysis For Water And Wastes" and/or the American Public Health Association "Standard Methods For the Examination Of The Water And Wastewater" and amendments thereto, or with any other sampling and analytical procedure approved by the administrator of the U.S.E.P.A. or O.E.P.A. All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in this chapter shall be determined at the control structure (Section K) provided, or upon suitable samples taken at the control structure. In event no special structure has been required, the control structure shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. Sampling shall be carried out by the customarily accepted methods to reflect the effect of constituents upon the property. The particular analyses involved will determine whether a twenty-four hour composite of all outfalls of a premise is appropriate or whether a grab sample or samples should be taken. Samples will be collected by and analyzed by personnel assigned by the City for that duty.. Additionally, when flow-measuring equipment has been required to be installed, sampling shall be completed using the flow proportional method for those parameters requiring composite sampling.

(m) All dischargers subject to this ordinance shall retain and preserve for no less then three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling, and chemical analysis made by or on the behalf of a discharger in connection with its discharge. All records which pertain to matters which are subject to administration adjustment or any other enforcement or litigation activities brought by the City of Springfield pursuant hereto shall be retained and preserved by the discharger until all enforcement activities have concluded and all periods of limitations with respect to any and all appeals have expired.

(n) Any discharger subject to this ordinance shall, if deemed necessary by the City, submit to the wastewater treatment plant a quarterly report indicating the nature and concentration of all substances prohibited or regulated by this ordinance or Federal Categorical Pretreatment Standards that are contained in its discharge and the average and maximum daily flows in gallons.

(o) All existing and new industrial dischargers will submit to the Springfield Wastewater Treatment Plant an Industrial Baseline Report within 90 days after connection to the sanitary sewer system. Significant industrial users that fall under the federal categorical standards shall submit their baseline report 90 days before discharge into the sanitary sewer system. The questionnaire shall include, but not be limited to, the Standard Industrial Classification number, site and sewer plumbing plans, and plant activities, processes, and raw materials. The report shall state whether the applicable pretreatment standards or requirements are being met on a consistent basis and, if not what additional operating and maintenance and/or pretreatment is necessary to bring the discharger into compliance with the applicable

pretreatment requirements.

(p) In addition to the questionnaire in subsection (o), the industrial users regulated by the Federal Categorical pretreatment standards as promulgated by the U.S.E.P.A. shall submit to the City within ninety (90) days of initial discharge and on a bi-annual basis, a compliance report. This compliance report shall include, but not be limited to, the nature and concentration of prohibited or regulated substances in the effluent which are limited by the Federal Categorical Pretreatment Standards. In addition this report shall include a record of all measured or estimated average and maximum daily flows during the reporting period. All analysis shall be preformed by the discharger, or by his agent, in accordance with 40 CFR, part 136 and amendments thereto. Where 40 CFR, part 136 does not include a sampling or analytical technique for the pollutant in question, sampling and analysis shall be performed in accordance with the procedure set forth in EPA publication, "Sampling And Analysis Procedures For Screening Of Industrial Effluents For Priority Pollutants", April, 1977, and amendments hereto, or with any other sampling and analysis procedures approved by the administrator of the U.S.E.P.A. If any significant industry that is required to self monitor analyzes any pollutant more frequently than required by it's discharge permit, using approved analytical methods as specified herein, the results of such monitoring shall be included in the calculations and reportings to the POTW in the following bi-annual reports. If any self monitoring, results are a violation of this ordinance then the discharger must notify the City within twenty-four (24) hours after becoming aware of the violation and must resample for the parameters in violation and report the results to the POTW within thirty (30) days of becoming aware of the initial violation.

(q) In the event any substance, material, slug, upset, water or waste the discharge of which is prohibited by subsection (d) or (e) herein is discharged into the sewer system, the person responsible for such discharge shall notify the Wastewater Treatment Plant immediately, and in no case later than one (1) hour following such discharge, so that remedial action can be taken. The person(s) responsible for such discharge shall report to the POTW in writing within five (5) days from verbal notification as to the cause, action taken, and measures taken to prevent such occurrences from happening again. All cost incurred to correct any damage resulting from such discharge shall be charged to the person responsible for such discharge. Each such discharge shall be considered separately and costs and charges shall be levied accordingly. Failure of the person responsible for such discharge to report same, or to institute such corrective measures as are necessary to prevent a subsequent such discharge after having been notified in writing by the City to do so and having been given a responsible time in which to institute such measures, shall result in the sewer through which such discharge enters the public sewer being disconnected from the public sewer. Said sewer will not be reconnected until, in the opinion of the Director, appropriate corrective measures have been implemented.

(r) Every industrial user which discharges " High Strength sewage" rather than, or in addition to "Normal sewage", either directly or indirectly, into the City's wastewater treatment system shall be charged and pay a sewer system surcharge in addition to the sewerage service charge. Every person discharging sewage into the City's wastewater treatment system having a concentration of any one or more of the sewage constituents described in subparagraph (1) of this paragraph (r), which is more than two (2) times the "Normal sewage" value of that sewage constituent, as defined in Section 916.01(t), shall be charged a surcharge (SC1) for the billing period. The surcharge will apply at all volumes discharged during a billing period above 15,000 gallons per day and shall be determined by the average daily discharge per billing period. Every person discharging sewage into the City's wastewater treatment system having a concentration of any one or more of the sewage constituents described in subparagraph (1) of this paragraph (r), which is more than seven and one half (7.5) times the "High Strength sewage" value for that sewage constituent, as defined in Section 916.01(p), (i.e. a Slug or sometimes called a "Slug Load"), shall be charged an additional surcharge (SC2) for the billing period.

(1) The amount of the surcharge shall be based on the levels of the following three sewage constituents pertinent to the wastewater being discharged into the City's wastewater treatment system:

A. Total Suspended Solids (TSS)
B. Biochemical Oxygen Demand (CBOD)
C. Ammonia Nitrogen (NH_3)

(2) Surcharges imposed under this paragraph (r) shall be calculated based on all constituent values over the "High Strength sewage" value for the concentration values for the sewage constituents described in subparagraph (1) of this paragraph (r) discharged by the customer during the billing period, as determined by use of the applicable formulas shown below.

"High Strength sewage" Formula:

SC1 = Q x (CV – SL - HSS) x 8.34 x SCR

"Slug Load" Formula:

SC2 = Q x SL x 8.34 x (SCR x 4)

Wherein:

SL = Surchargeable Slug Load concentration (mg/L).

SL = CV – SLV
(When SL is less than or equal to zero, the SL value used in the above formulas shall be zero.)

SC1 = Surcharge for a constituent's High Strength sewage concentration ($).

SC2 = Total charge for Slug Load surcharge for concentration ($).

Q = Total quantity of the waste flow million gallons (MG).

CV = Constituents concentration from sampling (mg/L).

HSS = High Strength sewage value for constituent (mg/L).

CBOD = 400 mg/L
TSS = 500 mg/L
NH_3 = 30 mg/L

SLV = Slug Load value for constituent (mg/L)

CBOD = 3000 mg/L
TSS = 3750 mg/L
NH_3 = 225 mg/L

SCR = Base rate of surcharge per pound for constituent ($).

Table Of Base Rates Of Surcharge Per Pound For Constituent

	High Strength sewage	Slug Load value

CBOD Surcharge per Lb	*$0.16*	*$0.64*
TSS Surcharge per Lb	*$0.13*	*$0.52*
NH_3 Surcharge per Lb	$0.60	$2.40

The total of all surcharges imposed under this paragraph (r) for a billing period shall be the sum of SC1 plus SC2 computed for each of the three constituents listed in subparagraph (1) of this paragraph (r) [this may require six calculations and the summation of six surcharge numbers]. Surcharge amounts will be added to the customers bill for the billing period.

(3) The measurements described in subparagraph 2 above shall be volumetric measurements determined from samples taken from discharge points determined by the City at such a time or times, of such duration and in such a manner as the City may elect.

(4) If for any one or more of the sewage constituents described in subparagraph (1) of this paragraph (r) the mass amount of the sewage constituent discharge for a sample is equivalent to five percent (5%) or more of the Wastewater Treatment Plant Average Headworks Loading for that sewage constituent, as defined herein, the Director may establish a compliance schedule under which the customer must reduce the concentration of the discharged sewage constituent: (a) so that the discharge of the sewage constituent does not meet the definition of a slug; or (b) to a maximum mass discharge amount of four percent (4%) of the Wastewater Treatment Plant Average Headworks Loading, whichever is greater. Wastewater Treatment Plant Average Headworks Loading is defined as the average monthly mass amount of each sewage constituent, described in subparagraph (1) of this paragraph (r), received by the City's Wastewater Treatment Plant, as determined from the City's latest Wastewater Treatment Plant influent analysis, less any process recycle loading in the most recent calendar year for which data is available.

(s) All Industrial users proposing to connect to or contribute to the POTW shall obtain a wastewater discharge permit from the Springfield Wastewater Treatment Plant before connecting to or contributing to the POTW. Users required to obtain a wastewater permit shall complete and file with the City a baseline report, an application contract card and any other pertinent documents deemed by the City as being necessary to determine discharge characteristics and flow. If, in the opinion of the superintendent, a significant industrial user is required to develop a slug discharge control plan, the plan must be submitted and approved before the permit may be approved. This plan must be reviewed and updated each time the permit is renewed The wastewater permit will be issued to a specific user for a specific operation. A wastewater discharge permit is non transferable and shall not be reassigned or transferred or sold to a new owner, new user, different premises, or a new or changed operation. Any succeeding owner or user shall also apply for a new permit, if applicable. The City of Springfield has the right to disapprove permit applications for new dischargers or increases to existing loadings before discharges actually commence. The City has the right to revoke existing permits should it become necessary to protect the POTW or its discharge points or for flagrant violations of this ordinance. No significant industrial user shall discharge into any City sewer, whether directly or indirectly, without a valid wastewater discharge permit. Should changes occur to the significant industrial user's operation or any system that might alter the nature, quality, or volume of its wastewater, that user must notify the Superintendent at least thirty (30) days in advance, and a new permit shall be issued.

(t) All reports required under this section shall include the following certification statement: "I certify that under penalty of law that this document and all attachments were prepared under my

direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." All reports that are more than forty five (45) days late shall require that the Sewer User be found in Significant Non-Compliance. All reports shall be signed by a manager that is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and of initiating and directing other comprehensive measures, to assure the long-term environmental compliance with applicable laws and regulations.

(u) No person shall access the sewer system or POTW for any activity including discharge of hauled septic or industrial wastes except at the locations and at times designated by the Director. Any removal of manhole lids, or other access to the sewer system for the purpose of discharging wastes at times and/or locations other than those designated by the Director, or without the express permission of the Director, shall be considered a violation and shall be subject to enforcement action including fines and penalties allowed under this Chapter.

916.03 PROTECTION FROM DAMAGE.

No unauthorized person shall maliciously, willfully, or negligently break, damage, uncover, deface or tamper with sewage works.

916.04 POWERS AND AUTHORITY OF INSPECTORS.

(a) The Director and other authorized employees of the City with proper credentials and identification shall be permitted to enter at reasonable times all properties for the purpose of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this chapter. The Director or his representative shall be given access to and allowed to copy any records, forms, or reports necessary to ensure compliance with all applicable discharge requirements, hazardous waste requirements and pretreatment requirements which shall include, but not be limited to, any hazardous wastes manifests, chemical inventories, solid or liquid disposal reports, material safety data sheets (M.S.D.S), discharge analysis, or any other related records. The Director or his representative shall have no authority to inquire into any processes beyond that point having a direct bearing on the kind and source of discharge to the sewers and waterways or facilities for waste treatment. They shall observe all safety regulations which are applicable to the premises.

(b) If any provision, paragraph, word, or section of this chapter is invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, words and sections shall continue in full force and effect.

(c) Information and data furnished to the City of Springfield with respect to the nature and frequency of discharge shall be available to the public or other governmental agencies without restriction unless the discharger specifically requests and is able to demonstrate to the satisfaction of the City that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of proprietary information of the discharger. When requested by a discharger furnishing a report, the portions of a report which may disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to this ordinance, the National Pollution Discharge Elimination System (NPDES) Permit, State Disposal System Permit and/or the pretreatment programs; provided, however, that such portions of a report shall be available for use by the State or any State agency in judicial review or enforcement proceedings involving the discharger furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information. Information accepted by the City of Springfield as confidential, shall not be transmitted to any governmental agency or to the

general public by the City of Springfield until and unless a ten (10) day notification is given to the discharger.

(d) Whenever the Director or his agent finds that any industrial user has violated or is violating this ordinance, or a wastewater permit, or order issued hereunder, the Director or his agent may serve upon said user a written notice of violation. Within ten (10) working days of the receipt date of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the Director or his agent. Submission of this plan in no way relieves the user of liability for any violations occurring before or after the receipt of the notice of violation.

(e) The Director or his agent is hereby empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the industrial user responsible for the noncompliance. Such orders will include specific action to be taken by the industrial user to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to Section 916.04(G).

(f) The Director or his agent may order any industrial user which causes or contributes to violation of this ordinance or wastewater permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served on the user specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the user show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any principal executive, general partner of corporate officer. Whether or not a duly notified industrial user appears as noticed, immediate enforcement action may be pursued.

(g) When the Director or his agent finds that an industrial user has violated or continues to violate the ordinance or a permit or order issued thereunder, he may issue an order to the industrial user responsible for the discharge directing that, following a specified time period, sewer service shall be discontinued unless adequate treatment facilities, devices or other related appurtenances have been installed or are properly operating. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the installation of pretreatment technology, additional self-monitoring, and management practices.

(h) When the Director or his agent finds that an industrial user has violated or continues to violate this ordinance or a permit or order issued hereunder, he may issue an order to cease and desist all such violations and direct those persons in noncompliance to comply forthwith; or to take such appropriate or remedial or preventative action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

916.99 PENALTY.

(a) Whoever violates any provision of this chapter, shall be fined not less than five hundred dollars ($500.00) or more than five thousand dollars ($5,000.00) for each violation. Each day in which any such violation shall continue shall be deemed a separate offense. Such assessments shall be added to the user's next scheduled sewer service charge and the Director or his agent shall have such other collection as he has to collect other service charges. Unpaid charges, fines, and penalties shall constitute a lien against the individual users property. Industrial users desiring to dispute such fines must file a request for the Director or his agent to reconsider the fine within ten (10) days of being notified of the fine. When the Director or his agent believes the request has merit, he shall convene a hearing on the matter within thirty (30) days of receiving the request from the industrial user.

(b) Any person who knowingly makes any false statements, representations or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this

ordinance, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this ordinance shall be fined not less then five hundred dollars ($500.00) or more then five thousand dollars ($5000.00) for each violation.

(c) Whoever violates any provisions of this chapter shall become liable to the City for any expense, loss or damage occasioned the City by reason of such violation including those costs assessed by the Ohio Environmental Protection Agency and/or The U.S. Environmental Protection Agency as a result of the wastewater treatment plant's inability to treat and effectively reduce the said pollutant.

(d) At least annually, the Director shall publish a list of all industrial users which at any time during the previous twelve months were in significant noncompliance with applicable pretreatment requirements. For the purpose of this provision, an industrial user is in significant non compliance if its violations meet one or more of the following criteria:

(1) For significant industrial users, Any Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all of the measurements taken during a six-month period exceed (By any magnitude) the daily maximum limit or the average limit for the same pollutant parameter;
(2) For significant industrial users, Any Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC= 1.4 for fats, oil and grease, and 1.2 for all other pollutants except pH);
(3) For all industrial users, Any other violation of pretreatment effluent limit (daily maximum or longer term average) that the Director determines has caused, alone or in combination with other dischargers, interferences or pass through (including endangering the health of POTW personnel or general public);
(4) For all industrial users, Any discharge of a pollutant that has caused imminent endangerment of human health, welfare or to the environment or has resulted in the POTW's exercise of emergency authority to halt or prevent such a discharge;
(5) For all industrial users, Any Failure to meet, within ninety (90) days after the schedule date, a compliance schedule milestone contained in a wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;
(6) For all industrial users, Any Failure to provide, within forty five (45) after the due date, required reports such as baseline monitoring reports, 90 day compliance reports, periodic self- monitoring reports, and reports on compliance with compliance schedules;
(7) For all industrial users, Any Failure to accurately report noncompliance;
(8) For all industrial users, Any other violation or group of violations which the Director determines will or has adversely affected the operation or implementation of the City's pretreatment program.

(e) Whenever an industrial user has violated or continues to violate the provisions of this ordinance or permit or order issued hereunder, the Director, through counsel may petition the courts for the issuance of a preliminary or permanent injunction or both (as may be appropriate) which restrains or compels the activities on the part of the industrial user. The Director shall have such remedies to collect these fees as it has to collect other sewer charges.

(f) Whenever an industrial user has violated or continues to violate the provisions of this ordinance or an order or permit issued hereunder, water service to the industrial user may be severed and service will only recommence, at the user's expense, after it has satisfactorily demonstrated its ability to comply.

(g) Any industrial user who has violated or continues to violate this ordinance or any order or permit issued hereunder, may be charged a civil penalty of not more the five thousand dollars ($5,000.00) but at least five hundred dollars ($500.00) plus actual damages incurred by the treatment plant per violation per day for as long as the violation continues. In addition to the above described penalty and damages, the Director or his agent may recover reasonable attorney's fees, court costs and other expenses associated with the enforcement activities, including sampling and monitoring expenses. The Director or his agent may petition the court to impose, and recover such sums. In determining the amount of liability, the court shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration, any economic benefit gained through the industrial user's violation, corrective actions by the industrial user, the compliance history of the user, and any other factor as justice requires.

(h) Any industrial user who willfully or negligently violates any provision of this ordinance or any orders or permits issued hereunder shall, upon conviction, be guilty of a misdemeanor, punishable by a fine not to exceed one thousand dollars ($1,000.00) per violation per day or imprisonment for not more than one year or both. In the event of a second conviction, the user shall be punishable by a fine not to exceed three thousand dollars ($3,000.00) per violation per day or imprisonment for not more than three years or both.

Appendix E: Septic System Flyer

Cost-Share Opportunities to Eliminate Your Septic System

Why you should consider connecting to the city sewer

- Septic systems require regular maintenance and pumping,
- Can depress property value, and
- If leaking, may pollute groundwater and streams and spread disease.

Leaky septic tanks contaminate groundwater.

Eliminating a Septic System is Expensive, but there is Funding!

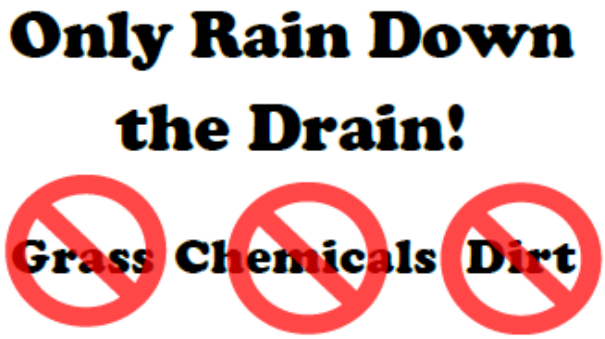
City Stormwater Cordinator
Sky Schelle: sschelle@ci.springfield.oh.us, (937)324-7739
www.ci.springfield.oh.us/swu/index.htm.

Funding Available

- The City Service Department has funds to assist eligible residential property owners obtain a gravity connection or, where a gravity connection is not practical, a sewer grinder pump to serve the property.
- The Community Development Department's Emergency Repair Program is a zero interest loan that may assist with the cost of retiring a septic system and connecting to the sewer. Eligibility is based, in part, on household income.

Appendix F: Grass Clipping Outreach

Outreach to be mailed to local landscapers



Window Cling for landscape vehicles

Appendix G: Chapter 961

CODIFIED ORDINANCES OF SPRINGFIELD

PART NINE - STREETS, UTILITIES, AND PUBLIC SERVICE CODE

TITLE SIX - Storm Water Regulations
Chap. 961. Regulations.
Chap. 963. Administration.
Chap. 971. Floodplain Regulations.

CHAPTER 961
Regulations

961.01 GENERAL PROVISIONS.

Purpose. Part Nine, Title Six of the Codified Ordinances, establishes standards to achieve a level of management and conservation practices which will control wind or water erosion of the soil and minimize the degradation of water resources by soil sediment in conjunction with land grading, excavating, filling, or other soil-disturbing activities on land used or being developed for non-farm commercial, industrial, residential, or other non-farm purposes, and establish criteria for determination of the acceptability of such management and conservation practices. These standards are designed to implement applicable water quality management and non-point source management plans prepared under Section 208 and Section 319 of the Federal Water Pollution Control Act, 86 Stat 816, 33 U.S.C.A. 1288, as amended. Such standards and criteria shall be used by the City Engineer to review projects required to control sediment pollution pursuant to any applicable statutory or administrative authority including but not limited to division (K) of Section 1511.02 of the Revised Code and Section 319 of the Water Quality Act of 1987.
(Ord. 95-50. Passed 2-14-95.)

961.02 DEFINITIONS.

As used in Part Nine, Title Six of the Codified Ordinances:
(a) "Accelerated water erosion" means the wearing away of the land surface by

water, occurring at a much more rapid rate than geologic or normal erosion, primarily as a result of the influence of the activities of humans.

(b) "Channel" means a natural stream that conveys water; a ditch or channel excavated for the flow of water.

(c) "City Engineer" means the City Engineer of The City of Springfield, Ohio.

(d) "Concentrated storm water runoff" means surface runoff which converges and flows primarily through water conveyance features such as swales, gullies, waterways, channels or storm sewers and which exceeds the maximum specified flow rates of filters or perimeter controls intended to control sheet flow.

(e) "Conservation" means the wise use and management of natural resources.

(f) "Control Plan" means a written description, necessary calculations and detailed construction plans, acceptable to the City Engineer, to control storm water and erosion caused by accelerated runoff from a development or for controlling sediment pollution from accelerated erosion on a development.

(g) "Cut and fill slopes" means a portion of land surface or area from which soil material is excavated and/or filled forming a slope or embankment.

(h) "Denuded area" means a portion of land surface on which the vegetation or other soil stabilization features have been removed, destroyed or covered and which may result in or contribute to erosion and sedimentation.

(i) "Developer" means any person commencing proceedings under this ordinance to effect the development of land for himself or for another. The owner of a property is included within the term "developer" in every circumstance.

(j) "Development area" means any tract, lot or parcel of land or combination of tracts, lots or parcels of land which are in one ownership, or are contiguous and in diverse ownership where earth disturbing activity is to be performed.

(k) "Ditch" means an excavation either dug or natural for the purpose of drainage or irrigation with intermittent flow.

(l) "Drainageway" means an area of concentrated water flow other than a river, stream, ditch, or grassed waterway.

(m) "Dumping" means grading, pushing, piling, throwing, unloading, or placing of soil.

(n) "Earth-disturbing activity" means any grading, excavating, filling, or other alteration of the earth's surface where natural or man-made ground cover is destroyed and which may result in or contribute to erosion and sediment pollution.

(o) "Earth material" means soil, sediment, rock, sand, gravel, and organic material or residue associated with or attached to the soil.

(p) "Floodplain Erosion" means abrading and wearing away of the nearly level land situated on either side of a channel due to overflow flooding.

(q) "Erosion" means the process by which the land surface is worn away by the action of water, wind, ice or gravity. Erosion includes accelerated erosion, floodplain erosion, gully erosion, natural erosion, normal erosion, rill erosion, and sheet erosion.

(r) "Erosion and sediment control practices" means conservation measures used to control sediment pollution and includes structural practices, vegetative practices and management techniques.

(s) "Frequency storm" means a rainfall event of a magnitude with a specified average recurrence interval and is calculated with soil conservation service type II twenty-four-hour curves or depth-duration frequency curves.

(t) "Grading" means earth-disturbing activity such as excavation, stripping, cutting, filling, stockpiling, or any combination thereof.

(u) "Grassed Waterway" means a broad and shallow natural course or constructed channel with erosion resistant grasses or similar herbaceous cover which is used to conduct surface water drainage runoff at non-erosive velocities.

(v) "Grubbing" means removing, clearing or scalping material such as roots, stumps or sod.

(w) "Gully Erosion" means the erosion process whereby water accumulates in narrow channels during and immediately after rainfall or snow or ice melt and actively removes the soil from this narrow area to considerable depths such that the channel would not be obliterated by normal smoothing or tillage operations.

(x) "Natural Erosion (Geologic Erosion)" means the wearing away of the earth's surface by water, ice, or other natural environmental conditions of climate, vegetation, etc., undisturbed by man.

(y) "Normal Erosion" means the gradual erosion of land used by man which does not greatly exceed natural erosion.

(z) "Outfall" means an area where water flows from a structure such as a conduit, storm sewer, improved channel or drain, and the area immediately beyond the structure which is impacted by the velocity of flow in the structure.

(aa) "Public Waters" means water within rivers, streams, ditches, and lakes, except private ponds and lakes wholly within single properties, or water leaving property on which surface water originates.

(bb) "Rill Erosion" means an erosion process in which numerous small channels only several inches deep are formed; occurs mainly on recently disturbed soils.

(cc) "Sediment" means solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by wind, water, gravity, or ice, and has come to rest on the earth's surface.

(dd) "Sediment Basin" means a barrier, dam, or other suitable detention facility built across an area of waterflow to settle and retain sediment carried by surface drainage runoff waters.

(ee) "Sediment control" means the limiting of sediment transport by controlling erosion, filtering sediment from water, or detaining sediment-laden water allowing sediment to settle out.

(ff) "Sediment pollution" means failure to use management or conservation practices to control wind or water erosion of the soil and to minimize the degradation of water resources by soil sediment in conjunction with land grading, excavating, filling, or other soil-disturbing activities on land used or being developed for non-farm commercial, industrial, residential, or other non-farm purposes.

(gg) "Sensitive Area" means an area of water or resource as delineated by the City Engineer prior to plan approval that requires special management because of its susceptibility to sediment pollution or because of its importance to the well-being of the surrounding communities, region, or the state and includes:

(1) Ponds, wetlands or small lakes with less than five acres of surface area;

(2) Small streams with gradients less than ten feet per mile with average annual flows of less than 3.5 feet per second containing sand or gravel bottoms; and

(hh) "Settling facility" means a runoff detention structure such as sediment basins or sediment traps, which detain sediment-laden runoff allowing sediment to settle out.

(ii) "Sheet Erosion" means the removal of a fairly uniform layer of soil from the land surface by wind or runoff water.

(jj) "Sheet flow" means overland water runoff in a thin uniform layer.

(kk) "Site" means any lot or parcel of land or a series of lots or parcels of land adjoining or contiguous or joined together under one ownership where clearing, stripping, grading, or excavating is performed.

(ll) "Slip" means the rapid mass movement of soil and rock material downhill under the influence of gravity in which the movement of the soil mass occurs along an interior surface of sliding.

(mm) "Sloughing" means a slip or downward movement of an extended layer of soil

resulting from the undermining action of water or the earth-disturbing activity of man.

(nn) "Soil" means unconsolidated, erodible earth or ground consisting of minerals and/or organics.

(oo) "Soil loss" means soil moved from a site by the forces of erosion and redeposited at another site on land or in a body of water.

(pp) "Soil stabilization" means vegetative or structural soil cover controlling erosion, and includes permanent and temporary seed, mulch, sod, pavement, etc.

(qq) "Storm water control structure" means practices used to control accelerated storm water runoff from development areas.

(rr) "Storm water conveyance system" means all storm sewers, channels, streams, ponds, lakes, etc., used for conveying concentrated storm water runoff or storing storm water runoff.

(ss) "Storm Frequency" means the average period of time in years within such a storm of a given duration and intensity can be expected to be equaled or exceeded.

(tt) "Stream" means a body of water running or flowing on the earth's surface or channel in which such flow occurs. Flow may be seasonally intermittent.

(uu) "Subdivision" means:

(1) The division of any parcel of land shown as a unit or as contiguous units on the last preceding tax roll, into two or more parcels, sites, or lots, any one of which is less than five acres for the purpose, whether immediate or future, or transfer of ownership, provided, however, that the division or partition of land into parcels of more than five acres not involving any new streets or easements of access, and the sale or exchange of parcels between adjoining lot owners, where such sale or exchange does not create additional building sites, shall be exempted; or

(2) The improvement of one or more parcels of land for residential, commercial or industrial structures or groups of structures involving the division or allocation of land for the opening, widening or extension of any street or streets, except private streets serving industrial structures; the division or allocation of land as open spaces for common use by owners, occupants or lease holders or as easements for the extension and maintenance of public sewer, water, storm drainage or other public facilities.

(vv) "Unstable soil" means a portion of land surface or area which is prone to slipping, sloughing or landslides.

(ww) "Water resources" means all streams, lakes, ponds, wetlands, watercourses, waterways, drainage systems, and all other bodies or accumulations of surface water, natural or artificial, which are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters which do not combine or effect a junction with natural surface waters.

(Ord. 95-50. Passed 2-14-95.)

961.03 SCOPE; PROHIBITION.

(a) Part Nine, Title Six, applies to non-agricultural, earth-disturbing activities performed on lands located within the City's corporate boundaries; provided, such lands are not subject to the jurisdiction of a state or federal governmental agency which regulates the matters governed by this Chapter.

(b) Part Nine, Title Six, does not apply to:

(1) Those areas managed jointly as a farming or silvicultural operation or regulated by Ohio agricultural sediment pollution abatement rules (1501:15-3-01 to 1501:15-3-09 of the Administrative Code).

(2) Strip mining operations regulated by Chapter 1513 of the Revised Code.

(3) Surface mining operations regulated by Chapter 1514 of the Revised Code.

(c) No person shall cause or allow earth-disturbing activities on a development area except in compliance with the standards and criteria set out in this Chapter.

(1) The developer shall develop and submit for review a control plan. Such a plan shall contain sufficient information, drawings and notes to describe how storm water impact, soil erosion and off-site storm water impact will be kept to a minimum, both during and after construction. No earth-disturbing activities shall commence prior to approval of the control plan by the City Engineer.

(2) The control plan shall be certified by a Professional Engineer, registered in the State of Ohio.

(Ord. 95-50. Passed 2-14-95.)

961.04 EXCEPTIONS.

(a) Any developer seeking approval to construct a single-family residence shall be exempted from having to prepare a control plan; provided, they comply with the subdivision lot grading plan approved by the City Engineer.
(Ord. 95-50. Passed 2-14-95.)

(b) When the total detention required on a development area is under 1,000 cubic feet, the City Engineer may, upon the request of the developer, waive the detention requirements of this chapter. The City Engineer will not grant a waiver if it is determined that storm water drainage would be a threat to adjacent properties if no detention were to be provided or if it is determined that the public sewer system downstream of the development area is not adequate to handle the increased storm flow.
(Ord. 96-48. Passed 2-6-96.)

(c) Exemption under this section from the requirement to prepare and submit a control plan does not exempt such developer from complying with the other provisions of this ordinance. The City Engineer may require the developer to submit information necessary for the City Engineer to evaluate compliance with the requirements of this Chapter.
(Ord. 95-50. Passed 2-14-95.)

961.05 STANDARDS.

(a) In order to control sediment pollution of water resources the developer for the development area shall use conservation planning and practices to maintain the level of conservation established by the following standards:

(1) Timing of sediment-trapping practices. Sediment control practices shall be functional throughout earth-disturbing activity. Settling facilities, perimeter controls, and other practices intended to trap sediment shall be implemented as the first step of grading and within seven days from the start of grubbing. They shall continue to function until the upslope development area is restabilized.

(2) Stabilization of denuded areas. Denuded areas shall have soil stabilization applied within seven days if they are to remain dormant for more than forty-five days. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site, and shall also be applied within seven days to denuded areas which may not be at final grade, but will remain dormant (undisturbed) for longer than forty-five days.

(3) Settling facilities. Concentrated storm water runoff from denuded areas

shall pass through a sediment-settling facility. The facility's storage capacity shall be sixty-seven cubic yards per acre of drainage area.

(4) Sediment barriers. Sheet flow runoff from denuded areas shall be filtered or diverted to a settling facility. Sediment barriers such as sediment fence or diversions to settling facilities shall protect adjacent properties and water resources from sediment transported by sheet flow.

(5) Storm sewer inlet protection. All storm sewer inlets which accept water runoff from the development area shall be protected so that sediment-laden water will not enter the storm sewer system without first being filtered or otherwise treated to remove sediment, unless the storm sewer system drains to a settling facility.

(6) Working in or crossing streams.
   (a) Streams including bed and banks shall be restabilized immediately after in-channel work is completed, interrupted, or stopped. To the extent practicable, construction vehicles shall be kept out of streams. Where in-channel work is necessary, precautions shall be taken to stabilize the work area during construction to minimize erosion.
   (b) If a live (wet) stream must be crossed by construction vehicles regularly during construction, a temporary stream crossing shall be provided.

(7) Construction access routes. Measures shall be taken to prevent soil transport onto surfaces where runoff is not checked by sediment controls, or onto public roads.

(8) Sloughing and dumping.
   (a) No soil, rock, debris, or any other material shall be dumped or placed into a water resource or into such proximity that it may readily slough, slip, or erode into a water resource unless such dumping or placing is authorized by the City Engineer and, when applicable, the U.S. Army Corps of Engineers, for such purposes as, but not limited to, constructing bridges, culverts, and erosion control structures.
   (b) Unstable soils prone to slipping or landsliding shall not be graded, excavated, filled or have loads imposed upon them unless the work is done in accordance with a qualified Professional Engineer's recommendations to correct, eliminate, or adequately address the problems.

(9) Cut and fill slopes. Cut and fill slopes shall be designed and constructed in a manner which will minimize erosion. Consideration shall be given to the length and steepness of the slope, soil type, upslope drainage area, groundwater conditions, and slope stabilization.

(10) Stabilization of outfalls and channels. Outfalls and constructed or modified channels shall be designed and constructed to withstand the expected velocity of flow from a post- development, ten-year frequency storm without eroding.

(11) Establishment of permanent vegetation. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until ground cover is achieved which the City Engineer determines will provide adequate cover and is mature enough to control soil erosion satisfactorily and to survive adverse weather conditions.

(12) Disposition of temporary practices. All temporary erosion and sediment control practices shall be disposed of within thirty days after final site stabilization is achieved or after the temporary practices are no longer needed, unless otherwise authorized by the City Engineer. Trapped sediment shall be permanently stabilized to prevent further erosion.

(13) Maintenance. All temporary and permanent erosion and sediment control practices shall be designed and constructed to minimize maintenance requirements. They shall be maintained and repaired as needed to assure continued performance of their intended function. The developer for the continued maintenance of permanent erosion controls shall be identified to the satisfaction of the City.

(b) The City Engineer is empowered to adopt excavation and construction specifications and erosion and sediment control practice specifications, consistent with the accomplishing the purposes of this Chapter, which shall be used by Developers in complying with the requirements of this Chapter.

(c) These standards shall not operate to limit the power of the City Commission to enact ordinances to impose additional, more stringent requirements when necessary to accomplish the purposes of this Chapter. These standards shall not operate to limit the discretion of the City Engineer to waive requirements imposed by this Chapter; provided such waiver is consistent with accomplishing the purposes of this Chapter.

(Ord. 95-50. Passed 2-14-95.)

961.06 CONTROL PLANS.

In order to control sediment pollution of water resources, the developer for the development area shall develop a control plan for the development area.

(a) The control plan shall identify potential erosion and sediment pollution problems and describe measures to be taken to control those problems.

(b) The control plan must be submitted to and be approved by the City Engineer prior to any earth-disturbing activity on the development area.

(c) The following information shall be included in the control plan:

(1) A general project description including the nature and purpose of the earth-disturbing activity;

(2) A vicinity sketch locating the development area and all pertinent surrounding features, including water resources;

(3) The location of sensitive areas receiving runoff from the development area;

(4) The existing and proposed topography;

(5) The location and description of existing and proposed drainage patterns and facilities, including any allied drainage facilities beyond the development area;

(6) The limits of earth-disturbing activity;

(7) The types of soils within or affected by the development area and the location of all highly erodible or unstable soils;

(8) Erosion and sediment control practices to be employed on the development area:

(A) Their location; and

(B) Where applicable, their size, detail drawings, maintenance requirements, and design calculations.

(9) Storm water provisions, including:

(A) A general description of the storm water management strategy proposed to meet the requirements of this Chapter;

(B) The location and design calculations for all permanent storm water conveyance, detention, and retention structures;

(C) The person or entity responsible for continued maintenance of the storm water control structure;

(D) Maintenance requirements and schedules; and

(E) Permanent access and access easements required to perform inspection and maintenance of storm water control structures and storm water conveyance systems.

(10) The schedule, phasing, and coordination of construction operations and erosion and sediment control practices.
(Ord. 95-50. Passed 2-14-95.)

961.07 STREAM CHANNEL AND FLOOD PLAIN EROSION.

(a) In order to control pollution of public waters by soil sediment from accelerated stream channel erosion and flood plain erosion caused by accelerated storm water runoff from development areas, the peak rates of runoff from an area after development may be no greater than the peak rates of runoff from the same area before development for all twenty- four-hour storms from one- to one-hundred-year frequency. Design and development to match the peak rate of runoff for the one-, two-, five-, ten-, twenty-five-, fifty-, and one-hundred-year storms will be considered adequate to meet this rule.

(b) (1) If the volume of runoff from an area after development will be greater than the volume of runoff from the same area before development, it shall be compensated by reducing the peak rate of runoff from the critical storm and all more-frequent storms occurring on the development area to the peak rate of runoff from a one-year frequency, twenty-four-hour storm occurring on the same area under predevelopment conditions. Storms of less-frequent occurrence (longer return periods) than the critical storm up to the one-hundred-year storm shall have peak runoff rates no greater than the peak runoff rates from equivalent size storms under predevelopment conditions.

(2) The critical storm for a specific development area is determined as follows:

(A) Determine the total volume of runoff from a one-year frequency, twenty-four-hour storm, occurring on the development area before and after development.

(B) From the volumes in paragraph (b)(2)(A) of this section, determine the per cent of increase in volume of runoff due to development and, using this percentage, select the critical storm from the following table:

If the percentage increase in volume of runoff is:		The 24-hour "critical storm" for discharge limitation will be:
≥	<	
0	10	1 year
10	20	2 year
20	50	5 year
50	100	10 year
100	250	25 year
250	500	50 year
500	--	100 year

("≥" means greather than or equal to and "<" means less than)

(C) Methods for controlling increases in storm water runoff peaks and volumes may include, but are not limited to:

(i) Grading and use of grade control structure to provide a level of control in flow paths and stream gradients.

(ii) Provisions for detention and retention (for example, permanent ponds and lakes with storm water basins provided with proper drainage, multiple-use areas for storm water detention and recreation, wildlife, or transportation, or subsurface storage areas).

(D) Hydrologic calculation methods shall be as follows:

(i) For developments under 5 acres: use either the rational method or "Urban Hydrology for Small Water Sheds" technical release 55, U.S. Department of Agriculture.
(ii) For developments over 5 acres: use "Urban Hydrology for Small Water Sheds" technical release 55, U.S. Department of Agriculture.
(iii) For developments over 200 acres: may use, with the concurrence of the City Engineer, "Project Formulation Hydrology" technical release 20, U.S. Department of Agriculture.
(Ord. 95-50. Passed 2-14-95.)

961.08 SHEET AND RILL EROSION.

To control pollution of surface waters by soil sediment and other pollutants, the developer shall:

(a) Construct and maintain basins sized in accordance with the United States Soil Conservation Service handbook, "Water Management and Sediment Control for Urbanizing Areas" (Washington, D.C., U.S. Government Printing Office, June 1978); or
(b) Apply and maintain a level of management and conservation or practices such that the predicted average annual soil loss, accumulated monthly in accordance with the procedure in the United States Soil Conservation Service handbook, "Water Management and Sediment Control for Urbanizing Areas," is less than fifteen (15) tons per acre the first year commencing from the time of initial earth disturbance, ten (10) tons per acre the second year, and five (5) tons per acre for any other year of the development process. The management and conservation practices shall be designed, applied, and maintained so that the entire development area and any part thereof is protected from accelerated erosion in accordance with the stated criteria; or,
(c) Use other methods to control surface water pollution; this may include but is not limited to a combination of paragraphs (a) and (b) of this standard, provided those methods are acceptable to the City Engineer.
(Ord. 95-50. Passed 2-14-95.)

961.09 CONCENTRATED WATER EROSION.

To control pollution of surface waters by soil sediment from accelerated erosion in drainageways and grassed waterways and in streams and ditches disturbed or modified in conjunction with the development process on a development area, the developer shall:

(a) Design, construct, and maintain concentrated water flow channels such that the velocity of flow does not exceed the permissible velocities listed below; or

TABLE OF PERMISSIBLE VELOCITIES FOR FLOWING WATER

Maximum Velocities for Grassed Waterways

Cover	Slope** Range** (percent)	Permissible Velocity* Erosion Resistant Soils (feet/second)	Easily Eroded Soils (feet/second)
Kentucky Bluegrass	0 - 5	7.0	5.0
Tall Fescue	5 - 10	6.0	4.0
Smooth brome	over 10	5.0	3.0
Grass mixtures**	0 - 5	5.0	4.0

Reed canary	5 - 10	6.0	3.0
Redtop***	***		
Red fescue	0 - 5	3.5	2.5

* Use velocities exceeding five feet per second only where good cover and proper maintenance can be obtained.

** Do not use on slopes steeper than ten percent except for vegetated side slopes in combination with a stone, concrete, or highly resistant vegetative center section.

*** Do not use on slopes steeper than five percent except for vegetated side slopes in combination with a stone, concrete, or highly resistant vegetative center section.

Drainage Field Ditches. Drainage field ditches are shallow-graded ditches with flat side slopes which do not interfere with tillage operations. Generally, the side slopes range from 8:1 to 15:1. The purpose of drainage field ditches is to collect water from depressional or nearly flat areas within a field and remove it to a stable outlet. Generally, erosive velocities will not be a problem because of the low gradient of fields in which drainage field ditches are used and because of the shallow side slopes. Maximum velocities shall be limited to 2.5 feet/second unless on-side studies show that higher velocities will not result in erosive conditions.

Maximum Velocities for Vegetated Stream Channels.

Drainage Areas Less Than One Square Mile: The maximum permissible design velocity shall be based on site conditions and shall be such as to result in stability of the ditch bottoms and side slopes. Maximum permissible velocities will be computed using bank-full stage or ten-year frequency stage, whichever is lower. The following table will be used as maximum velocity for all drainage main or lateral designs. Vegetation will be established immediately after construction.

Subsoil Texture	Maximum Velocity* (feet/second)
Sand and sandy loam (non-colloidal)	2.5
Silt loam (also high lime clay)	3.0
Sandy clay loam	3.5
Clay loam	4.0
Stiff clay, fine gravel, and graded loam to gravels	5.0
Graded silt to cobbles (colloidal)	5.5
Shale, hardpan, coarse gravel	6.0

* Channels that cannot be designed to meet the maximum velocity limitations must be stablized with materials other than vegetation. Such materials include crushed rock, concrete, gabions, etc.

Drainage Areas Greater Than One Square Mile: Channel velocities for newly constructed channels with drainage areas in excess of one square mile shall meet special stability requirements contained in U.S. Soil Conservation Service Technical Guide (Technical Release 25, Planning and Design of Open Channels).

(b) Design, construct, and maintain sediment basins sized in accordance with the United States Soil Conservation Service handbook, "Water Management and Sediment Control for Urbanizing Areas"; or

(c) Use other methods to control sediment pollution; this may include but is not

limited to a combination of paragraphs (a) and (b) of this standard, provided those methods are acceptable to the City Engineer.
(Ord. 95-50. Passed 2-14-95.)

961.10 SLOUGHING, LANDSCAPING, AND DUMPING.

To control sediment pollution of surface waters caused by sloughing, landsliding, or dumping of earth material, or placing of earth material into such proximity that it may readily slough, slide, or erode into public waters by natural forces, no person shall:

(a) Dump or place earth material into public waters or into such proximity that it may readily slough, slide, or erode into public waters unless such dumping or placing is authorized by the City Engineer for such purposes as, but not limited to, constructing bridges, culverts, erosion control structures, and other in-stream or channel bank improvement works; or

(b) Grade, excavate, fill, or impose a load upon any soil or slope known to be prone to slipping or landsliding, thereby causing it to become unstable, unless qualified engineering assistance has been employed to explore the stability problems and make recommendations to correct, eliminate, or adequately address the problems. Grading, excavating, filling, or construction shall commence only after the City Engineer has reviewed and approved the exploratory work and recommendations and only in accordance with the approved recommendations.

961.11 STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

(a) No person or operator shall engage in:

(1) Construction activity that results in land disturbances of greater than or equal to one acre, or

(2) Construction activity disturbing less than one acre when that construction activity is part of a larger common plan of development or sale that would disturb one acre or more, or

unless that construction activity is performed in full compliance with the current version of Ohio EPA's Construction General Permit: "AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINA-TION SYSTEM."

(b) No person or operator shall allow post-construction runoff from new development and redevelopment completed after the effective date of this regulation, unless the runoff is in full compliance with the current version of Ohio EPA's Construction General Permit: "AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM."

(c) The provisions of this section shall not apply to a person or to construction activity or to runoff when the Ohio EPA has granted an exemption from the requirements of the current version of Ohio EPA's Construction General Permit "AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM" for such person or to construction activity or to runoff.
(Ord. 10-340. Passed 11-23-10.)

Appendix H: Civil Penalty Letter for Construction Sites

Date

(Property Owner)
(Address)
(Address line 2)

Dear:

This letter is in reference to a lack of erosion control, as required by your Ohio EPA General Construction Permit Number OHC000003, at the *project name* located at *address*. Enclosed are my copies of site inspections that were given to your on-site representative. The *describe problem* has not been addressed to the specifications in your Stormwater Pollution Prevention Plan. This deficiency is classified as a Class B Civil Offence subject to a civil fine as outlined in ordinance 1324.03.

The fines for civil offenses are:

Offense	Initial Civil Fine	If Delinquent	If Sent For Collection
Class A	$50.00	$100.00	$133.33
Class B	$100.00	$200.00	$266.66
Class C	$200.00	$400.00	$533.32

If the issue(s) listed above is not corrected within seven days of this letter's receipt, you may receive notice of a Class B Civil Fine. We will also forward our findings to Ohio EPA. Please contact Sky Schelle, city Stormwater Coordinator, with any questions.

Sincerely,

Sky Schelle
Stormwater Coordinator
937-324-7739
sschelle@ci.springfield.oh.us